SOAP

FEBRUARY 1937

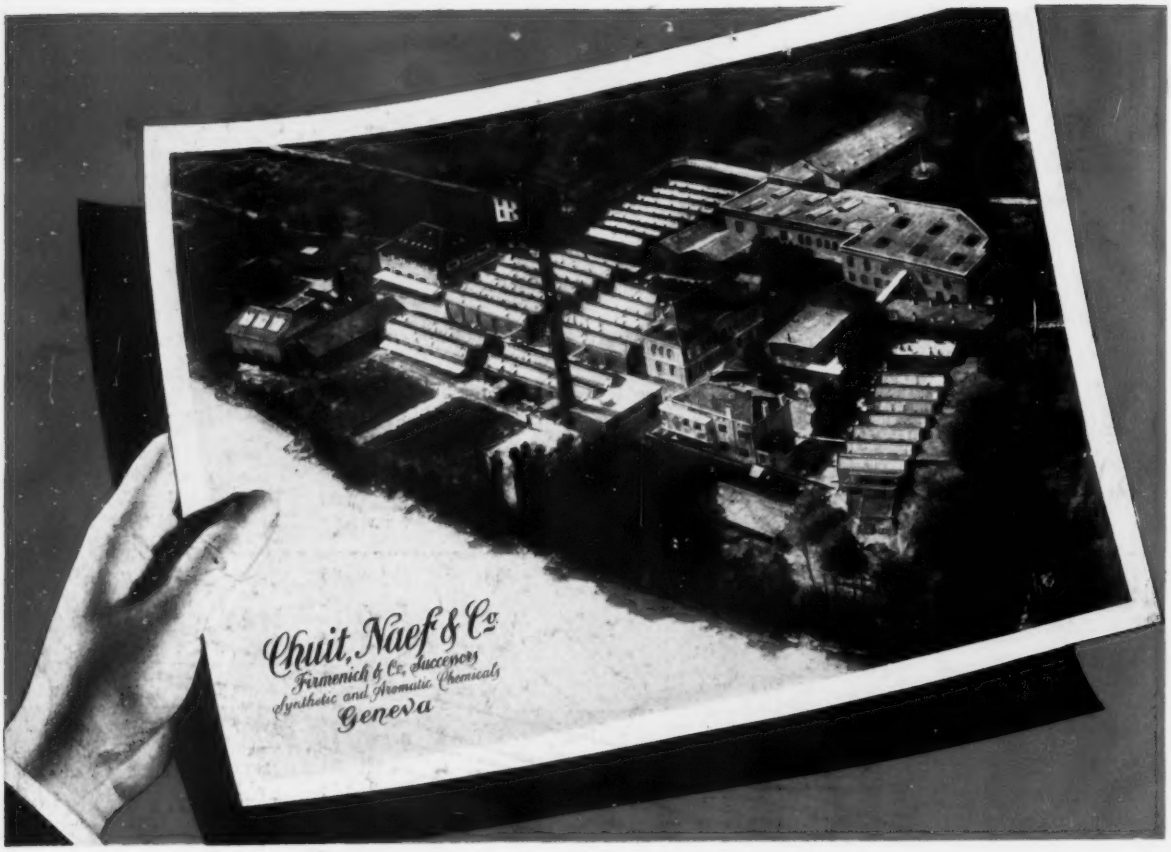
307.8
So12

SOAPS
INSECTICIDES
DISINFECTANTS
CHEMICAL SPECIALTIES
SANITARY SUPPLIES
POLISHES
CLEANERS

Best Fractions Only

Careful observation of every production step is the rule at Givaudan. Specially made clear glass bottles, such as those shown here, are used on vacuum stills to facilitate observation of the distillate and enable the operator to judge his "cuts" more accurately. Best fractions only is the aim—and every effort is made to secure them. You will find this watchful precision reflected in the superior results Givaudan aromatic products give you in soap production.

GIVAUDAN
DELAWANNA, INC.



Forty Years of Leadership

Since 1895 the name of Chuit, Naef has been synonymous with the production of the highest quality group of synthetic and aromatic chemicals obtainable. Today, as then, this reputation continues unmatched.

Throughout forty years the Chuit, Naef organization has expanded its products to the point where they now rank as the most complete line of perfume raw materials available to the soap, perfume extract and toilet goods fields.

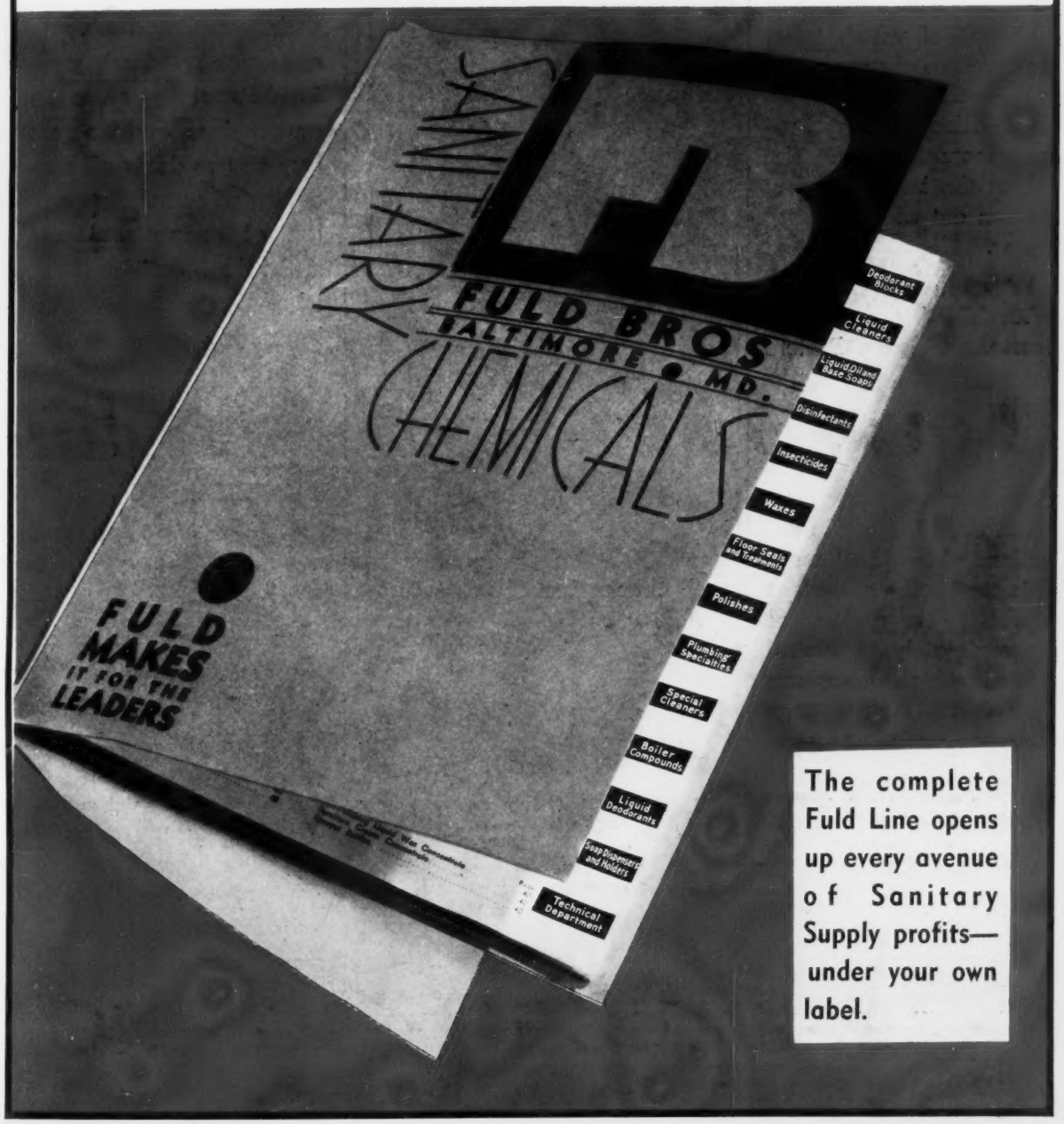
The laboratories at Geneva, Switzerland are constantly *showing the way* in the development of new aromatic materials, basic specialties and finished compositions that aid *you* in solving your perfume problems.

As sole United States agents, let us convince you of the remarkable adaptability of our products to your line!

FIRMENICH & CO. INC.

135 FIFTH AVENUE, NEW YORK, N. Y.

UNDERCOVER Profits



The complete Fuld Line opens up every avenue of Sanitary Supply profits—under your own label.

An easy way to make LIQUID SOAPS

for Floors

HI-JEL

System saves time and money. The old method, for the consumer, was to take a gob of soft soap and stir it around in a pail—all of which takes time. The chances are too much soap will be used. Also some of it usually remains undissolved on the bottom and is thrown out with the dirty water.

•

With HI-JEL there is no waste, no delay. Porters prefer it. It is so much easier to use.

•

Under ordinary usage a drum of HI-JEL yields 650 gallons of liquid oil soap. This stands the consumer about 7c a gallon, or approximately 9/10c a pound which compares favorably with soap powders and detergents.

425, 275 or 135 DRUMS

HI-JEL is a hard concentrated vegetable oil soap that contains about twice the anhydrols content of the average oil soap.

for Hands

COCONOL

System is the ideal method of making liquid soap from base. Many consumers prefer to make their own liquid soap to save money. Merely pour 5 gallons of water into the system drum and the next day or two draw off concentrated soap. One gallon of concentrate will make three gallons of finished liquid hand soap by merely adding water.

•

NO FUSS, NO BOTHER, NO STIRRING.

•

Incidentally, have you seen the new circular on the complete Clifton line of SOAP DISPENSERS. INQUIRE TO-DAY.

CLEANS AND BRIGHTENS FLOORS, WALLS, AUTOS

CLIFTON CHEMICAL CO.
246 FRONT STREET, NEW YORK CITY

Tell us more about HI-JEL and/or COCONOL SYSTEM. Also give details on following:

- ☐ CONCENTRATED LIQUID SOAP
- ☐ COCONUT OIL BASE
- ☐ OLIVE OIL BASE
- ☐ DISPENSERS
- ☐ RUB-NO WAX
- ☐ DEODORIZING CAKES
- ☐ DEODORIZING BLOCKS
- ☐ WALL CONTAINERS
- ☐ METAL POLISH
- ☐ MOPPING VARNISH
- ☐ DISINFECTANTS
- ☐ FURNITURE CREAM
- ☐ INSECT KILLER
- ☐ SPOT REMOVER
- ☐ SHAMPOOS

Name..... Address.....

CLIFTON CHEMICAL CO., INC.
246 FRONT STREET NEW YORK, N. Y.

SOAP

Volume XIII
Number 2

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February, 1937

MEMBER AUDIT BUREAU OF CIRCULATIONS

SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 79. Production Section begins on page 65.

Published monthly by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK, N. Y.

Subscription rate, $3.00 per year. Foreign, including, Canadian. $4.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter, April 11, 1931, at Post Office, New York, under act of March 3, 1879. Mail circulation, January, 1937, issue, 3,553 copies. Total distribution, 3,800.

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ELIMINATE CHANCE AND UNCERTAINTY · · · INSIST ON

GRASSELLI T·S·P

FOR UNVARYING QUALITY AND UNIFORMITY ●

You will find in GRASSELLI TRI SODIUM PHOSPHATE those *plus qualities* that make it the popular brand generally specified on most orders for T. S. P.

It is non-caking; it comes in non-sifting packages, which prevent loss in transit or storage; it is delivered promptly from our nearest branch.

A trial will convince you of the high quality and uniformity of Grasselli Tri Sodium Phosphate. Specify *GRASSELLI* on your next order and learn what complete T. S. P. satisfaction is.

Let Us Also Quote You On

SILICATE OF SODA · CARBON TETRACHLORIDE · CAUSTIC SODA
PARADICHLOROBENZENE · SODIUM FLUORIDE · SODA ASH

E. I. DU PONT DE NEMOURS & COMPANY, INC.

DU PONT

GRASSELLI CHEMICALS DEPARTMENT

GRASSELLI

General Offices: Cleveland, Ohio

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Represented in Canada by CANADIAN INDUSTRIES, LTD., General Chemicals Division, Montreal and Toronto

FORMAROMES

for

PERFUMING FORMALDEHYDE

GREATER sales of Formaldehyde preparations such as disinfectant, antiseptic and deodorant sprays, cavity fluids, etc. are frequently limited by the inherently disagreeable odor of the Formaldehyde itself. To overcome this difficulty, the Felton Chemical Co. has developed a line of special aromatics . . . called FORMAROMES, which neutralize the Formaldehyde odor and impart an agreeable, pleasant scent.

FORMAROMES—SERIES A
for full strength Formaldehyde preparations.

FORMAROMES—SERIES B
for weaker Formaldehyde solutions.

WRITE FOR SAMPLES AND QUOTATIONS

FELTON CHEMICAL COMPANY Inc.

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUMES OILS, ARTIFICIAL FLOWER and FLAVOR OILS

603 JOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass. 80 Boylston St. | Philadelphia Pa. 200 So. 12th St. | Sandusky, Ohio 1468 W. Market St. | Chicago, Ill. 1200 N. Ashland Ave. | St. Louis, Mo. 345 Union Blvd. | New Orleans, La. Baltor Bldg. | Los Angeles, Cal. 515 S. Fairfax Ave. | San Francisco, 512 Washington

Stocks carried in principal cities

NEED CLEAR GLASS BOTTLES?

Let Us Send You Samples

SEE how crystal clear Maryland Glass Bottles and Jars really are. Make your own tests to prove that they are strong—well made. We have a wide variety of attractive shapes particularly suitable for liquid soaps, creams, shampoos, shoe polish, furniture and automobile polish. Complete range of sizes.

When writing for samples, please tell us the nature of your product and the capacities in which it is packed. Maryland Glass Corporation, Baltimore, Maryland. New York Representative: 270 Broadway, New York City. Pacific Coast Representative: Owens-Illinois Pacific Coast Company, San Francisco.

CRYSTAL CLEAR BOTTLES

Maryland Flint

Perfumes For

THEATRE SPRAYS

It makes no difference whether you use Alcohol, Alcohol and Water or Water alone as a base—we can furnish the proper perfume oil to produce an absolutely clear spray, without filtering. Furthermore, our perfumes will prove extremely popular with your customers.

Three Types

Standard Spray Odors for Alcohol Base Sprays	Special Spray Odors for Alcohol and Water Sprays	Super Soluble Bases for Water Base Sprays
$3.00 lb. in 1 lb. lots	$2.60 lb. in 1 lb. lots	$1.75 lb. in 1 lb. lots
2.90 lb. in 5 or 10 lb. lots	2.55 lb. in 5 or 10 lb. lots	1.70 lb. in 5 lb. lots
2.80 lb. in 25 lb. lots	2.50 lb. in 25 lb. lots	1.60 lb. in 25 lb. lots
Use 1 oz. to 1 gallon.	Use 1 oz. to 1 gallon.	Use 2 oz. to 1 gallon.

Obtainable in 20 different odors:

American Thistle	Geranium	Lily	Pine Forest
Apple Blossom	Honeysuckle	Mint	Rose
Bouquet	Jasmine	Narcissus	Trefle
Carnation	Lavender	New Mown Hay	Violet
Chypre	Lilac	Orange Blossom	Wild Flowers

National Association of INSECTICIDE and DISINFECTANT MANUFACTURERS Incorporated 1914

P. R. DREYER INC.

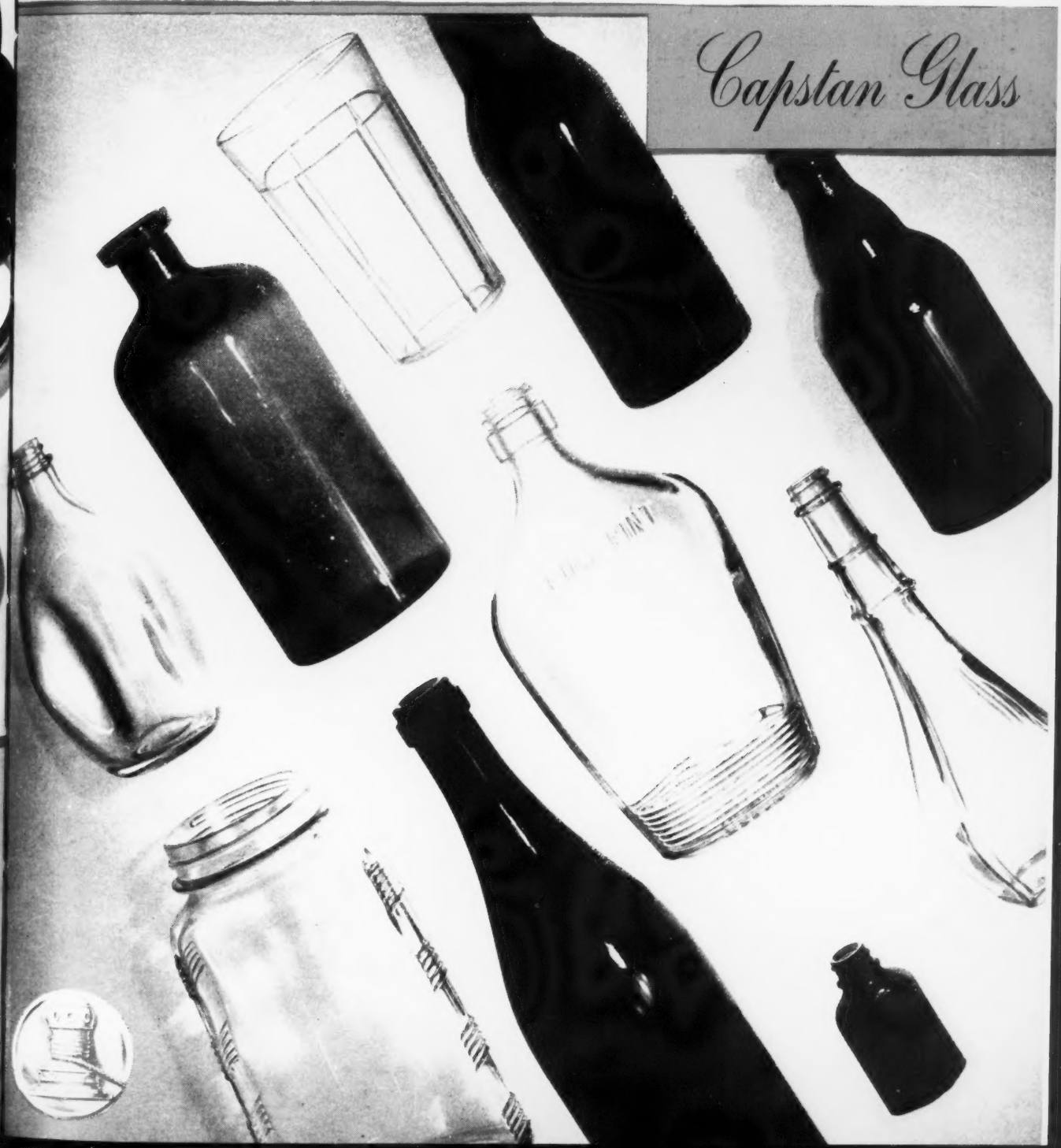
12 E. 12th Street New York

"It's the Odor that Sells the Product"

Anchor Caps

WHETHER you use only one style of closure or several, a thousand caps or millions, there are real advantages in buying from Anchor. The number of Anchor types and styles of caps may not seem of special importance to you . . . yet the mere fact that there is an Anchor Cap for practically every glass-packed product with every sort of physical characteristic, chemical reaction and degree of perishability makes it possible for us to suggest the exact closure best fitted to your needs. It likewise gives you the benefit of our more than quarter century of experience, our intimate contact with all types of sealing, capping and production problems. As a result of constant research and study in Anchor's laboratories and engineering departments, many exclusive features and refinements in our caps have been developed as well as improvements in methods of manufacture. No matter what product you now pack or closure you now use, have the Anchor representative check over your packages and methods of production. He may be able to suggest some improvement in sealing efficiency, in design or in economy. ANCHOR CAP & CLOSURE CORPORATION, Long Island City, New York; Toronto, Canada. Branch offices in all principal cities.

AS INDIVIDUALIZED as these glass containers are in design, they are still as like as peas in a pod . . . in quality. Every one of the thousands of items in the Capstan line—bottles, jars and tumblers for foods, drugs, wines, liquors, beer, toiletries and other glass-packed products—is made under the same ideal conditions of manufacture. The modern Capstan plant is equipped with the latest types of automatic machinery to turn out fine glassware. The electric annealing ovens, which are standard with Capstan, make for uniformity, strength and resistance in the glassware. Capstan's experienced glass makers thoroughly understand the need for exactness in every step of the manufacturing processes, for strict specifications of raw materials, for rigid standards of inspection . . . for care all along the line. The result is that Capstan customers invariably get the kind of glassware that is a credit to the product they pack, so clear and clean and sparkling that the containers themselves add sales appeal to the package. The next time you are in need of glass containers, consult with Capstan on your requirements. CAPSTAN GLASS COMPANY, Connellsville, Pa. *Associate Company:* SALEM GLASS WORKS. Branch offices in all principal cities.



NOW

is the time to MODERNIZE your wrapping equipment

THE new burdens which business in general has to bear call for new savings wherever possible. In the toilet soap business, wrapping as you know, is quite an item.

Now is the time to check up on your machines and methods . . . A definite comparison with our new fast models may show the way to important economies.

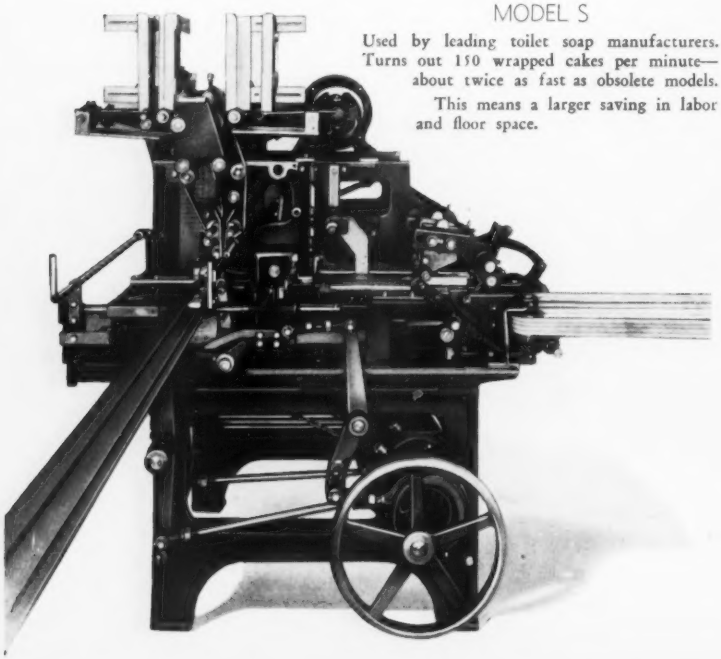
Get in touch with our nearest office.

PACKAGE MACHINERY COMPANY • Springfield, Mass.

NEW YORK - CHICAGO - CLEVELAND - LOS ANGELES

Mexico, D. F., Apartado 2303 - Peterborough, England: Baker Perkins, Ltd.

Melbourne, Australia: Baker Perkins Pty., Ltd.



MODEL S

Used by leading toilet soap manufacturers. Turns out 150 wrapped cakes per minute—about twice as fast as obsolete models.

This means a larger saving in labor and floor space.

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

SOLVAY
TRADE MARK REG. U. S. PAT. OFF.

PRODUCTS

FOR YOUR PRIVATE LABEL

Put Solvay quality into your packages and get more profits out of your private label trade. Solvay produces a wide variety of highest quality products, which are especially adapted to the needs of repackers. Write today for full information and prices.

SOLVAY SNOWFLAKE CRYSTALS
(TRADE MARK REG.)

Pure white, crystalline, immediately and entirely soluble, always free running, Solvay Snowflake Crystals is an excellent water softener and effective soap saver. Perfect solubility enables this mild cleanser to do its work without leaving a residue. Snowflake Crystals also makes the most perfect base for bath salts.

SOLVAY FLUF
(TRADE MARK REG.)

Fluf makes an ideal cleanser to add to your line of products because it produces the largest package with the lightest weight. Fluf is an extra light soda ash made especially fluffy, bulky and light by a process exclusive with Solvay.

SOLVAY SPECIAL CLEANSERS

—mixtures of basic materials used in all general cleansing. Solvay manufactures a complete line of these cleansers, covering every cleansing need which can be filled by the use of milder types of alkali. Special booklets describing these products can be obtained from any office of the Solvay Sales Corporation.

SOLVAY SPECIAL ALKALIES

Solvay Special Alkalies are specially prepared mixtures of a stronger type than the Special Cleansers. These alkalies are well adapted to the heavy duty type of cleaning. Full information will be supplied promptly upon request.

SOLVAY DETERGENT

Detergent of special grades adapted to various kinds of scouring, is another Solvay line which is providing profitable business opportunities in private label trade. Another field in which Solvay quality enables you to beat competition! Full information upon request.

SOLVAY PARA-DICHLOROBENZENE

In Fine—Medium—Coarse—Super-Coarse Crystals

Especially well adapted to block manufacture. Solvay Paradichlorobenzene is supplied in carefully graded crystal form, insuring perfect blending with colors and perfumes. A product of exceptional purity. Delivered in a selection of packages wide enough to meet all marketing needs.

SOLVAY ORTHO-DICHLOROBENZENE

For insecticide sprays and metal polishes. A water-white liquor shipped in 55 gal. drums and 5 gal. cans. The important ingredient for the termite exterminating solutions.

Mail coupon today for prices and full information

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET NEW YORK

BRANCH SALES OFFICES:

Boston	Cleveland	Kansas City	Philadelphia
Charlotte	Detroit	New Orleans	Pittsburgh
Chicago	Indianapolis	New York	St. Louis
Cincinnati			Syracuse

SOLVAY SALES CORPORATION
40 Rector Street, New York

Gentlemen: Please send me complete information on the products checked off below:

☐ Special Alkalies ☐ Snowflake Crystals ☐ Detergent
☐ Solvay Fluff ☐ Special Cleansers
☐ Ortho-dichlorobenzene ☐ Para-dichlorobenzene

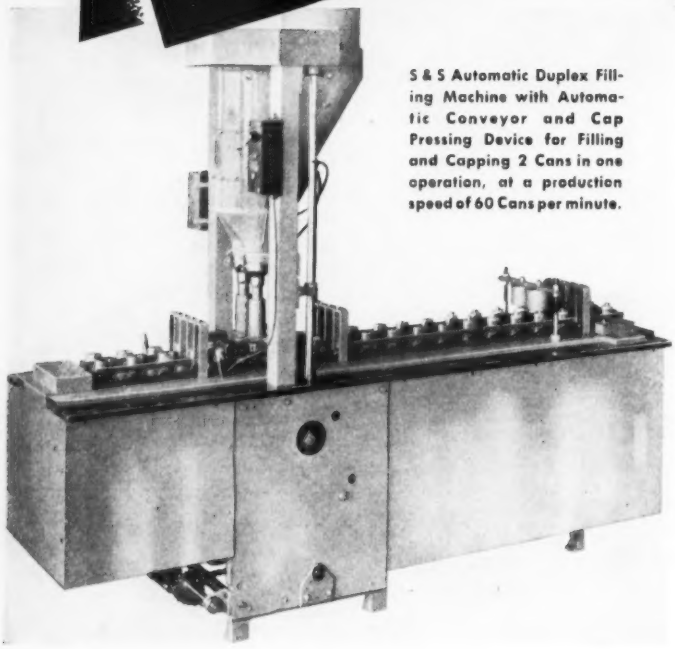
Name _____

Address _____

City _____ *State* _____

Type of business _____ SD

Another Leading Company Chooses... S&S FILLING EQUIPMENT



S & S Automatic Duplex Filling Machine with Automatic Conveyor and Cap Pressing Device for Filling and Capping 2 Cans in one operation, at a production speed of 60 Cans per minute.

FILLING MACHINES for powders, granular products, pastes . . . CARTON Filling and sealing machines . . . ENVELOPE Filling and sealing machines . . . TIGHT-WRAPPING Machines.

★

When E. R. Squibb & Sons, Manufacturing Chemists to the Medical Profession since 1858, decided to package Squibb Tooth Powder they chose the Stokes & Smith Automatic Duplex Filling Machine.

This machine fills two cans of the same size, or cans of two different sizes, at the same time. It also presses the caps in place and the complete operation is performed at a production speed of sixty packages per minute. That such a distinguished firm as E. R. Squibb & Sons should choose S & S Filling Equipment is considered high tribute. Perhaps it may bear witness to the fact that there is an S & S Filling Machine suited to your requirements, whether your product be a granular, powder or paste.

SPEEDS TO SUIT YOUR NEEDS—15-30-60-120 PER MINUTE—WRITE FOR ILLUSTRATED FOLDER

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

4915 Summerdale Ave., Philadelphia, U. S. A.

Yes---VITAMIN F *helps sell Soap!*

(Stores selling vitamin F soaps report very gratifying sales. Each day increasing numbers of the general public, as well as soap manufacturers and merchandisers, realize the importance of this valuable vitamin in skin health and beauty.)

Vitamin F Soaps help correct vital deficiencies ~

IMPORTANT! It is essential that Vitamin F should always be purchased on the basis of biological assay, measured in UNITS. Our Vitamin F concentrate (50,000 units per gram) is ready for accurate use always and is far less costly, on the basis of ACTUAL UNITS, than any natural source of Vitamin F (any source in its natural state, including linseed oil, is entirely too variable in its Vitamin F content and most generally contains little or none, therefore it is inaccurate, undependable, impractical in use). Sample ¼ gal. of Vitamin F concentrate (50,000 units per gram), certified and biologically assayed, is now available at $10, ready for use in soaps (cost per finished product is negligible). Ask about quantity prices.

In addition to cleansing, it should be a prime purpose of soaps to help correct such irregularities and blemishes as dryness, roughness, thickening of skin . . . brittleness, roughness of nails . . . brittleness, thinning of hair, dandruff. It is significant that all these can be symptoms of Vitamin F deficiency. It is more significant that USERS of Vitamin F Soaps report improved healthfulness and beauty of skin, hair, nails. Stores selling Vitamin F Soaps report large repeat business as well as huge volume of introductory sales. It becomes more apparent daily that Vitamin F is as essential to the EFFECTIVENESS of a soap as the perfume is to its ALLURE! We offer full information to every progressive soap manufacturer and merchandiser.

PHARMACEUTICAL SPECIALTIES CO.

A Division of

ARCHER-DANIELS-MIDLAND CO.

New York—Woolworth Bldg.: 155 E. Ohio St.—Chicago

(Pioneers in the industrial production of the original cold-pressed, stabilized and biologically assayed wheat germ oil—VITAMIN E)

To PHARMACEUTICAL SPECIALTIES CO.,
Woolworth Bldg., N. Y. C., Dept. S3.

Check is attached for ¼-gallon of VITAMIN F (50,000 units per gram) at $10. (Send quantity prices).

Also, send Mary Imogene Shepherd's new brochure, titled "Survey of VITAMIN F in Cosmetics."

Name .....

Firm .....

Address .....

just out—

1937
SOAP BLUE BOOK

for the Soap, Insecticide, Disinfectant & Allied Industries

The new 1937 Soap Blue Book and Catalog will be ready for mailing in a few days. Copies will be mailed without charge to all Soap subscribers. If you are not now a subscriber, or if your subscription is expiring, enter a new subscription promptly so that we shall be able to send you a copy of the new Blue Book while the supply lasts.

The Blue Book is a complete buying service for firms manufacturing soaps and allied sanitary specialties and for bulk jobbers of these products. It tells you not only what and where to buy, but also *how* to buy! Complete specifications on a variety of products are included, as well as testing information, advice on making purchases, market surveys, labeling instructions, etc. The sixty page appendix includes much valuable information for firms in this field, including the following articles:

- **Testing of Toilet Soaps—Methods in use by a well-known department store.**
- **Soap Market Survey—An analysis of consumer preferences for soaps and soap products taken from a recent survey of the Milwaukee market.**
- **Furniture Polishes—A review of the various types, with instructions for their preparation.**
- **Fly Spray Labels—Instructions issued by the U. S. Food and Drug Administration on labeling.**
- **Water hardness maps and tables.**
- **Complete text of new insecticide specification of National Association of Insecticide and Disinfectant Manufacturers.**
- **Government Specifications for soaps and sanitary products.**
- **How To Buy Sanitary Products—A symposium by leading manufacturers of these products.**
- **Complete Index of all Articles Appearing in 1934, 1935 and 1936 issues of Soap.**
- **Full details on U. S. import and excise taxes on various oils and fats.**

A subscription to Soap costs only $3.00 ($4.00 foreign) and includes a free copy of the new 1937 Soap Blue Book.

MAC NAIR-DORLAND CO., *Publishers*

254 WEST 31st STREET NEW YORK CITY

OIL SASSAFRAS ARTIFICIAL

SAFROL

OIL CAMPHOR "SASSAFRASSY"

We take particular pride in the UNIFORM HIGH QUALITY of these three products which we supply to the Soap Industry.

Made by us in our own factory FREE FROM FOREIGN BY-ODORS.

Prices in line with Quality—Spot or Contract Basis.

Working Samples Gladly Sent on Request

ORBIS

PRODUCTS CORPORATION

215 PEARL STREET, NEW YORK - FACTORY & LABORATORY, NEWARK, N. J.

CHICAGO
844 Rush St.

PHILADELPHIA
253 Bourse Bldg.

BOSTON
131 State Street

LOS ANGELES
742 So. Hill St.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Filter Paper	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss

STILL SPARKLING CLEAR AT 4° BELOW ZERO C.!

TRY this test on the liquid soap you are now buying -- particularly the concentrated (40%) which you are using as a base to produce liquids of lower soap content.

"BUCKEYE" and "GEM" concentrate liquid soaps remain absolutely clear at temperatures below zero C., lending themselves perfectly for use at all temperatures as a base in producing liquids of lower soap content.

Just dilute them with distilled water --- no need whatever for any filtering.

Send for samples and prices. No obligation.

THE DAVIES-YOUNG SOAP CO.
Dayton, Ohio

"BUCKEYE" CONCENTRATE
and
"GEM" CONCENTRATE
Liquid Soaps

Copyright 1933
By The Davies-Young Soap Co.

COLUMBIA

Photos courtesy
"U.S. Bureau of Public Roads"
"Oregon State Highway Commission"

PERFORMANCE

COLUMBIA

SODA ASH
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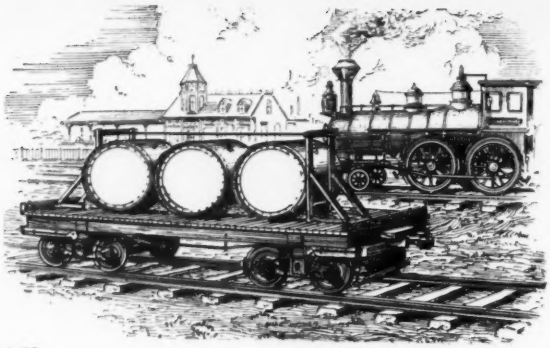
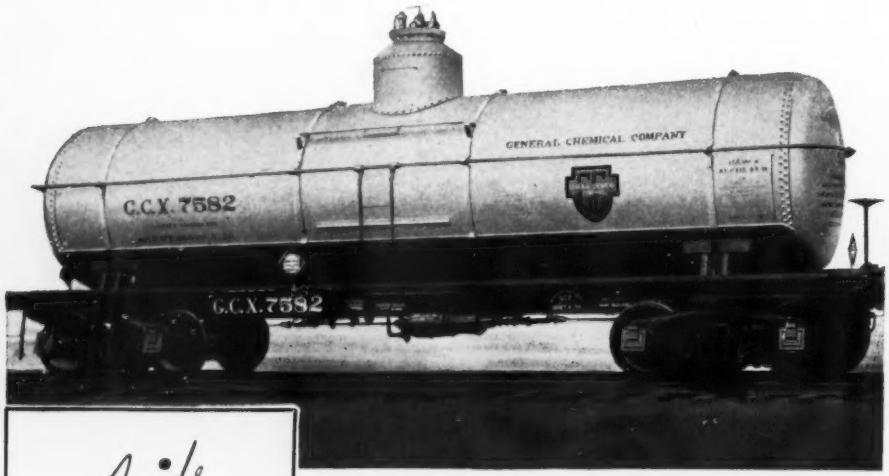


Until this, the first acid tank car, was built in 1873 by a predecessor of General Chemical Company, mineral acids never were shipped in any unit larger than the standard glass carboy.



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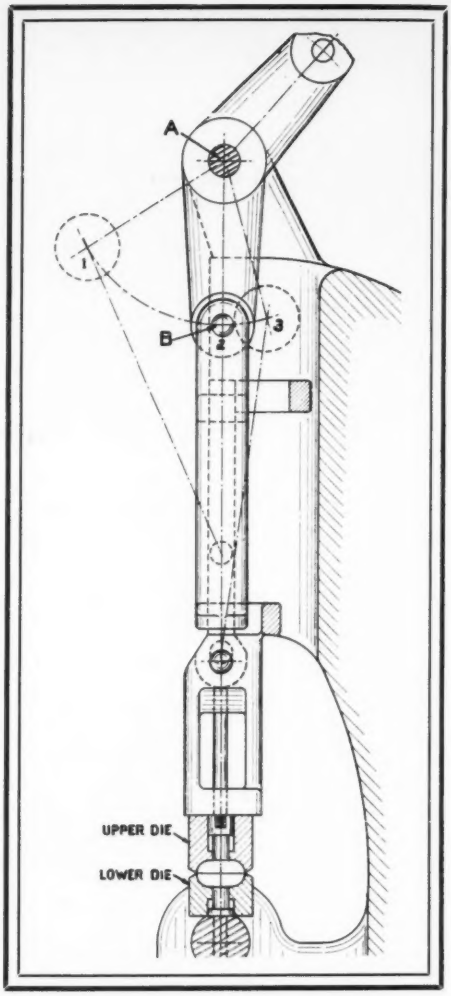
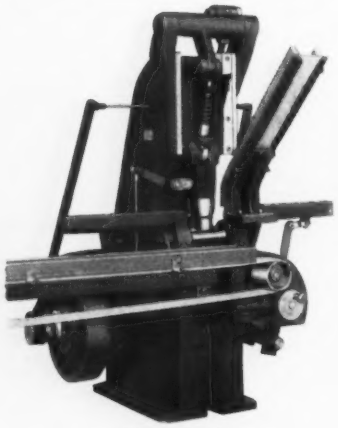


Note on our sketch that the upper die is at its extreme lowest pressing position when the centers A and B of the pressing toggle lever are in vertical alignment, and that any further motion of center B in either direction along the arc lifts the upper die away from the lower. Even a set of knife-edged dies (see position 2) cannot be marred as a result of over travel, as happens on older models.

This is one of many features that make the new Pin Die press the world's standard, and why perfect pin die cakes are produced by it, without halts for repairing dies.

SAVE TIME, ECONOMIZE ON DIES, AND PRODUCE FAR BETTER LOOKING CAKES BY INSTALLING A



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We make presses for all shapes, sizes and varieties of toilet and laundry soap.

As the editor sees it....

SOAP manufacturers will undoubtedly be called upon to replace flood-damaged soap in the hands of distributors in the Ohio and Mississippi River flood areas just as they were after the floods of last year. Owners of damaged and destroyed soaps are going to request that manufacturers replace these stocks without cost. Why free of cost? We do not know,—for we can see no logic or reason in such requests. Granted that the effects of the floods are heart-rending and the destruction of property a terrible blow to those in the inundated areas, nevertheless, we cannot see that there is the slightest particle of justice in calling upon the manufacturers to replace damaged goods without cost, because the goods happened to bear their brand names.

In the past, some soapmakers replaced damaged soap only when such soap was returned to them. A few soap manufacturers went further and allowed all sorts of claims, and in some cases, even freight charges. There is no doubt but that these broad allowances embarrassed other soapers who pursued a more conservative policy. In this disaster, as in the past, there are those who will attempt to take advantage of the situation, and who will not hesitate to play one competitor against another. Consequently, some uniformity in handling claims is essential to protect the entire soap industry. For the present, and until some sort of policy may be worked out in the industry, we would advise the allowance of no claims.

ALTHOUGH the excise tax on toilet soaps and cosmetics expires next July 1, a bill was introduced in Congress early last month by Congresswoman Mary Norton to repeal these taxes not only on toilet soaps but on toilet preparations as well. The Association of American Soap & Glycerine Producers is working toward the elimination of these "luxury" taxes as they apply to toilet soaps. With this in mind, the Association is gathering evidence in the form of sales figures from soap manufacturers,—including makers of shampoos, liquid soaps, etc.,—and is sending out a confidential questionnaire for the purpose. All individual figures will be held in strictest confidence by the Association. Only the totals will be used for presentation at Washington in urging the end of the five per cent "luxury" tax on soap. It is suggested to every manufacturer that he give his fullest cooperation in this work, and that if he have any suggestions, or a desire for further information, he get in touch with the Association office, 381 Fourth Avenue, New York, at once.

ALTHOUGH the two versions of the new Food, Drug and Cosmetic Bill,—the Senate version and that of the House,—agree in substance that ordinary toilet soaps shall be exempt from the provisions of the proposed law, their wording and meaning differ slightly in specifying the exemption. In the House definition of "cosmetic" under the bill, any soap claiming curative or medicinal qualities is not exempted. By a slightly reverse process of defining "cosmetic," the Senate bill exempts only soaps offered solely for cleansing purposes, thus denying exemption to "beauty" soaps, medicinal soaps, and others for which any but ordinary cleansing claims are made.

The language of the Senate bill is distinctly less favorable to the toilet soap manufacturer than that which was written into the Copeland Bill at the previous session of Congress. At that time, it may be remembered, toilet soaps were included in the bill, but were eventually exempted, except those which made claims of medicinal or curative qualities, as a result of strong protests

from the soap industry. The language of the new House bill (H. R. 300 by Chapman) is essentially the same as that which was written into the previous Copeland Bill at the behest of the soap makers. If it were satisfactory to the industry then, it should be now. As we see it, there should be no interference with ordinary toilet soaps from a wording of this type. But, whether this wording is satisfactory to all units of the soap industry, remains to be seen. Irrespective of its complete acceptability, it is distinctly to be preferred to the unsatisfactory wording of the present Senate bill.

SOAP buyers are now feeling the squeeze of rising prices,—and we hear over the grapevine that they do not like it. Neither do the soapers, who have done everything possible to hold prices down, but who have been forced to advance prices by the continued rising tide of fat prices. In fact, the higher prices which soap buyers are now being compelled to pay is no more the responsibility of the soap industry than the recent floods in the mid-west. If the rate of advance of fat costs over the past few months is compared with the advance in soap prices, it will be seen that the latter have not kept pace with the rise in the fat markets. Buyers who express their objections to soap manufacturers should be referred to that august body in Washington, the American Congress, upon whose excise tax legislation,—and irrespective of a world fat shortage, —rests the main responsibility for the present situation in soap prices.

THREE bills have already been introduced in the present session of Congress to increase excise taxes on certain oils and fats, and to add new taxes. In view of the present prices for tallow, greases, and oils, this appears to be adding insult to injury. With tallow up from three cents to ten cents, and other fatty materials at corresponding levels, the representatives of the "dairy" interests cannot be serious in their introduction of new legislation aimed to advance fat prices further. Probably this new legislation was conceived early last year,—in fact, a hang-over from the previous Congress. At any rate, in the light of present conditions, it is somewhat grotesque. But grotesque as it may be, new legislation of this character at the present time is loaded with dynamite,—dynamite which may explode in the faces of the renderers and oil crushers. To us the sane thing right now would be for the renderers, oil producers, and the dairy crowd to "call off their dogs" and put the quietus on their friends in Congress who give outward evidence of being slightly drunk with power.

THE common meaning of the word, "cosmetic," has been debated at considerable length since the advent of the first Copeland Bill several years ago. Definition of "cosmetic," particularly as it refers to toilet soaps, brought the passage of many words in committees at the previous session of Congress. It is perhaps no wonder, therefore, after all that has gone before, that we were startled to hear the following words from James F. Hoge, counsel for the Proprietary Association, in a recent public address: "In simple truth, face and hand soaps are cosmetics and, with other cleansing agents, should be subject to the proposed law." By "proposed law," he meant the present Copeland Bill.

In our opinion, Mr. Hoge left himself wide open when he prefaced his words with the phrase, "in simple truth." To reduce the definition of words to the "simple truth," the definitions should be free from technicalities. They should consider only the everyday, common usage of the words. "In simple truth," ordinary run-of-the-mill toilet, bath, and hand soaps are not sold as cosmetics to the American public, or are they considered such by the people who make the soaps, or by the dealers who sell them. Face creams, lip-sticks, rouge, face powder, lotions,—these are cosmetics. Soap used to wash the body has been soap and nothing else since the days when our great-grandmothers made it from fat drippings back on the farm,—and it still is.

Now if Mr. Hoge had become really technical, ultra-legal, and had said: "Technically speaking, and judging from the advertising claims of certain face and so-called beauty soaps, they are cosmetics."—he might have hit a lot closer to fact. But, "in simple truth," face and hand soaps are not cosmetics, irrespective of how some of them may be classified technically.

POTASH SOAPS

. . . . prices and costs

NO manufacturer makes his own prices. Neither are they determined alone by cost and overhead. Competition eventually determines prices on competitive items whether they be steel, bread or soap. No manufacturer can play a lone hand for long in competitive market either on the high-price side or the low-price side. If his prices are too high, he ceases to sell goods. If they are too low, he will sell plenty of goods but his losses will bring about his eventual demise. So, whether he likes it or not, competition is the greatest factor in determining the price policy of any manufacturer. If important elements among his competitors choose to lose money on their sales of potash soap, to select an example rather close at home, he is helpless in trying to sell at a profit until they decide to change their policies by choice or by force of circumstances, or they are overtaken by the sheriff. If large powerful units decide to sell below cost, they can play havoc with an industry for a long time. If small weak units try it, ordinarily they do not last long.

All this is rather elementary stuff to the average manufacturer of potash soaps who has lived through the competition of the past two years and the scrambled raw material markets of the past few months. And now, with fats and oils up in the clouds, and perhaps a wider variation in raw material costs among potash soap makers than for some years past,—a few bought oils on the way up, but the majority were still short when the market reached the peak,—the problems of costs, prices, and competition becomes more involved than ever. An analysis of the situation will in all probability be merely to review many of the facts which the average potash soap manufacturer knows only too well,—and to his sorrow.

A short time ago, a questionnaire covering a dozen questions on potash soap costs, raw material markets, prices, competition, and the like, was sent to a number of leading manufacturers in various parts of the country by the editors of SOAP. The reasons which prompted the sending out of this questionnaire were various, but chief among them was the fact that it was noted that when coconut oil and other oil prices went up sharply, soap prices were very sluggish in responding to the movements of the raw material markets. On the other hand, it was noted that whenever oil prices went down, the alacrity with which soap prices followed was in sharp contrast to the reverse process.

Piqued with interest at this apparent philanthropic attitude of the potash soapers toward their customers, the questionnaire was sent. The answers were enlightening in some instances. In others, the attempts to lead us astray were quite transparent. A few manufacturers were not enthusiastic about having anything on this subject published. But in case it was published, they took no chances that the picture would have the wrong perspective. The figures which they reported were quite obviously "safe" for publication. One prominent manufacturer advised that nothing be published inasmuch as it might induce a sharpening of the already keen competition in certain directions. He pointed out that the airing of cost finding formulas, methods of price determination, and so forth, could not do any good, and conceivably might do considerable harm. He stated that nobody in the business would pay any attention to them except to use them as a possible basis for price chiseling. However, he gave his answers frankly and did not attempt to lead us up a blind alley.

In considering the answers to the questionnaire, both the consensus and individual opinions are interesting. All the manufacturers reporting follow a definite method of determining costs,—and from these costs, their prices, modified, of course, by competitive conditions,—which must unquestionably vary widely in accuracy. The fact that net profits of the potash soap business have never been reported as unusually handsome might indicate cost systems perhaps that are not all they should be,—or possibly competitive conditions which preclude anything but a narrow margin of profit. Viewed from the surface, there do not appear to be many inducements which might attract new capital or new interests to the business. For this, the present manufacturers may have at least one thing for which to be thankful. It is the bulk buyer of potash soaps, however,—the jobber, the converter, and the like,—who is pointed to as the one sitting in the best spot, sharing none of the risks of the raw material markets, but securing most of the advantages passed along by manufacturers because of the keenness of competition among the latter.

The various questions of the

questionnaire have been set down here, and following each question a discussion of the consensus of opinion, and also some of the individual opinions. (Twenty leading manufacturers sent in their answers.)

Method of Pricing

Question No. 1. Do you have a definite method of pricing your various potash soap specialties based on definite raw material costs? Will you outline it briefly?

In answer to this question, we had hoped to secure methods of pricing based on varying oil costs, for example,—such as when the market for coconut oil is 10c, the price of 40 per cent liquid soap should be quoted at 50c per gallon,—coconut at 12c, price should be 60c, etc. (These are purely hypothetical figures.) However, most manufacturers outlined a procedure by percentages. The views as to pricing varied between 50 per cent and 75 per cent as the part of the price of finished soap which should be represented by cost of raw material, plus package. The average held that 60 per cent of the soap price should represent material cost.

Some of the individual statements were:

A. "Yes, we have a definite method of pricing our various potash soaps, based on the cost of raw materials, plus overhead and profit. However, it is not always possible to obtain the desirable sales price for the reason that some competitors sell soaps just a trifle higher than the cost of raw materials."

B. "We have a very definite method for the pricing of our various potash specialties whish is based entirely on the raw material cost. The formulas for these products are all set up on our standard cost system and as prices of raw materials fluctuate, the new prices are inserted on the cost sheets and a new price is obtained. We use a complete cost system for the pricing of not only our potash soap but every single item that we manufacture. To give you an exact detail of this particular procedure would require giving you our entire accounting system which would probably take about 40 to 50 pages. However, it does follow along with our cost accounting method."

C. "Yes, we have a definite method of figuring. Raw material costs including packing should not exceed 60 per cent of the selling price. In other words there should be 40 per cent gross profit on each sale. This applies to sales to the wholesale trade."

D. "Yes, we base our selling price on cost of raw material, with added 5 per cent for shrinkage, plus overhead, and to this basic cost we add our profit to show 25 per cent on gross sales."

E. "We price our various potash soaps on definite raw material costs. After figuring the costs of the finished products based on the cost of the raw materials, we generally add 100 per cent selling price, which is to take care of overhead, commissions, etc. For example; if the product cost 4c, we sell it at 8c in barrels, smaller quantities, higher price."

F. "We have a method of pricing potash soap specialties based on raw material costs. In most cases it is our own cost, although this depends somewhat on the immediate market and the outlook. The method is cost of raw material, plus overhead of every description, but which we mean, factory, selling, and administrative overheads, which include all manner of costs. After this, a net profit is added."

G. "We do not have any cut and dried method of adding any fixed amounts to the oil and fat costs in soap production in arriving at a selling price. We run a production card on every batch of soap we make and in this card we carefully figure the actual costs of the materials used, the actual amount of direct labor and kettle cost and a small theoretical amount to cover indirect labor. Having this figure so accurately determined we then consider that it represents 60 per cent of our selling price and it then becomes a simple matter to divide the cost by six to arrive at our minimum selling price. This naturally means that we have a gross margin of 40 per cent of the selling price to go on but you must remember that out of this margin has to come every item of cost including selling and advertising and in the final analysis on this basis we generally make between 5 and 7 per cent as net profit for ourselves on our business. Using this method of ours we are naturally forced to change prices more frequently than other people do because as costs go up our selling prices go up. We do not take into consideration small fluctuations in material costs but whenever there is a continuous trend upwards we always figure our costs on the basis of current prices on the oil and fats involved."

H. "Yes, we have very definite methods of pricing our potash soaps. These are based on the raw material cost plus the estimated manufacturing, selling and overhead charges per cwt. of soap produced. After we get all of these figures together, we look them over—and then figure whether or not we want to sell at the price then prevailing,—the price established by competition."

When Are Prices Revised?

Question No. 2. Do you advance or reduce your prices for finished soap products as soon as there is a change in the raw material market, or do you wait until your current stock of raw material is used up?

Most manufacturers advance their prices of finished soaps after an advance in material costs as soon as competition will permit them to do so, which apparently is not very soon in most instances. Apparently it takes close to ninety days before all soap makers bring their prices up in line with a raw material advance. A few manufacturers follow the oil market immediately on price changes, but competition prevents the majority from doing this. The majority state that they have to reduce soap prices as soon as there is a drop in raw materials because their competitors do so irrespective of the cost of stocks on hand.

A. "We observe the practices of our competitors and act accordingly. In any event, when our current stock of raw materials are used up, we would be forced to advance our minimum prices regardless of competitors' policies."

B. "We do not reduce our prices on finished soap if we have raw material on hand which was purchased at a higher price. On a new contract which is made at lower prices, we reduce price of soap accordingly."

C. "We generally advance or reduce prices of finished soap, just as soon as there is a change in raw materials, and do not wait until current stock of raw materials are used up."

D. "The matter of advancing or reducing prices for finished soap products depends largely on conditions. If, as at the present time, the market looks firm, for some time to come, prices must be advanced, regardless of stocks."

E. "We first give our customers advance information of any change in prices. If prices are to advance, we give them the option to purchase stock on hand at old prices, until such stock is disposed of."

F. "We endeavor to advance or reduce our prices on the finished soap products as soon as there is a change in the raw material market but in answer to No. 3 we usually have to wait until competition of the large soapers get together and decide to either advance or reduce it. We naturally are forced somewhat to follow the larger soapers."

G. "We advance the price of our finished soap if the raw material market goes up and as soon as we notice some other competitor raising prices."

H. "Our policy is to advise our customers of impending advance and give them an opportunity to purchase, and withdraw our prices as of a given date. This policy is adopted because of competition."

Competition Prevents Advance

Question No. 3. Do you find that competition prevents you from advancing your prices promptly when there is an advance in the raw material markets?

This question was answered to a considerable degree in answering the previous question. Most manufacturers keep their prices down until current supplies of raw materials are used up because they state they are compelled to do so by competition.

A. "Yes, we often find that competition prevents us from raising prices promptly. Some manufacturers refrain from doing so until they have used up the last pound of oil bought at lower prices."

B. "We do not let this question enter into consideration whatever. If higher priced materials compel us to advance prices, we do so accordingly."

C. "Unquestionably competition interferes with the prompt advance of prices on a rising market."

D. "In many instances, competition retards our advancing prices. We have a concrete case at the present time of corn oil soap, which is very high today, due to the advance in raw materials, yet some of our competitors are still selling corn oil potash soap prices ranging around 6c per pound in drum lots."

E. "The biggest preventative in advancing prices is competition."

Reduce on Major Oil Drop

Question No. 4. Do you find that you are compelled to reduce your prices immediately owing to competition when there is a decline in the raw material market?

This question is answered to a considerable degree in No. 2 and No. 3. The answers appear fairly well divided in this respect. Where declines in the material markets are small, few reductions are made in soap prices. However, when the drop in material costs is of some consequence, most soap prices are adjusted accordingly very shorter thereafter.

A. "We have always found it necessary to reduce prices immediately when materials decline, as competition immediately informs the trade of reduction."

B. "Small declines are usually not reflected in finished products, nor are small advances, but radical declines in the raw material market usually bring about quick reductions in price, depending on inventory status."

C. "No. Our soaps are favorably known throughout the country as quality products and therefore we do not find it necessary to lower prices and take losses."

D. "It has been so long since there has been a decline in the markets we almost forget the conditions, however we would say that we have a better opportunity of bettering prices a little longer time on a declining market than we have in getting advance prices on a rising market."

A Price Formula?

Question No. 5. Do you believe that there might be set up by publication a definite formula for calculating the proper selling prices of soap specialties such as potash soaps, liquid soaps, etc., according to raw material costs? (This would be a method of calculating finished selling prices according to the market for coconut oil, soya bean oil, etc.)

Manufacturers are split on this question. Some state that such a formula could be set up, but question that it would do any good or that anybody would, — or could, — use it, owing to competitive conditions. Again it is pointed out that it would establish a level from which chiseling could begin. It would not work say others, or would it mean anything, owing to widely varying conditions in different plants.

A. "It is very questionable in our mind if any publication or any story that might be published as to what percentage of profit should be given out by manufacturers of potash

(*Turn to Page* 36)

NEW FATS for the

WITH an acute shortage of soap fats, and prices at almost prohibitive levels, soap makers are being forced to abandon prejudices which they have held against certain newer or lesser-known fatty materials that are being offered in dribs and drabs from numerous sources. Based on a strong foundation to which many factors have contributed, the tight situation in fats is one which, in all probability, will not blow over in a few months. It rests, in large measure, on a sudden increase in demand and in consumption of fats brought about as a result of economic recovery, coupled with fat production curtailed both by economic and natural forces during recent years. The uncertainty surrounding conditions in Europe and Asia, with the development of strong nationalistic tendencies, has also had a substantial effect in damming up the free production and flow of fats and oils.

The sudden lack of a supply of coconut oil on the market is about the most serious phase of the whole disturbance as far as the soap maker is concerned. Coconut oil, by reason of the lathering power imparted to soaps made from it, is, of course, most important and the most widely used vegetable oil in the soap industry. Numerous events, such as the Philippine typhoon of a few years ago, which destroyed a large number of coconut palms, and the Revenue Act of 1934, have resulted directly in small reserve stocks in the hands of producers. They also have made soap makers become gradually aware of other products capable of replacing coconut oil. Thus, babassu oil has taken on some importance during recent months. The drawback in the case of this oil, however, is that large supplies of it are not available, and a few concerns have cornered most of the supply.

In looking for substitutes for one oil or another for the soap kettle, the chief factors to be borne in mind are consistency, lathering properties, saponification value, free fatty acid content, iodine number, content of unsaponifiable matter, color and odor. An index of hardness in the finished soap is provided by the consistency of the fats. Consistency also affects firmness of texture and the tendency of a soap to crack or not to crack. The titer of the fatty acids of any fat is an indication of what may be expected in this respect, oils of fairly high titer being more desirable on the whole for hard soaps.

Among the oils which have appeared on the market in recent months with varying capacities for replacing coconut oil are ouricury oil, tucum oil, murumuru oil, ucuhuba butter, and jaboty tallow, the latter two being imported from Brazil under the name of Brazilian wax. Ouricury, or urucury oil is obtained from the nuts of a palm which grows in Brazil and the Guianas, and is known by a number of other names. The oil is similar to coconut oil, having a saponification value of from 242 to 253, an iodine number of 12 to 13, and titer of 24° C. The oil usually contains about 0.3 per cent of unsaponifiable matter. Fair-sized quantities of ouricury oil have been used in recent months in margarin manufacture, although less than a year ago the oil had hardly been heard of in the United States.

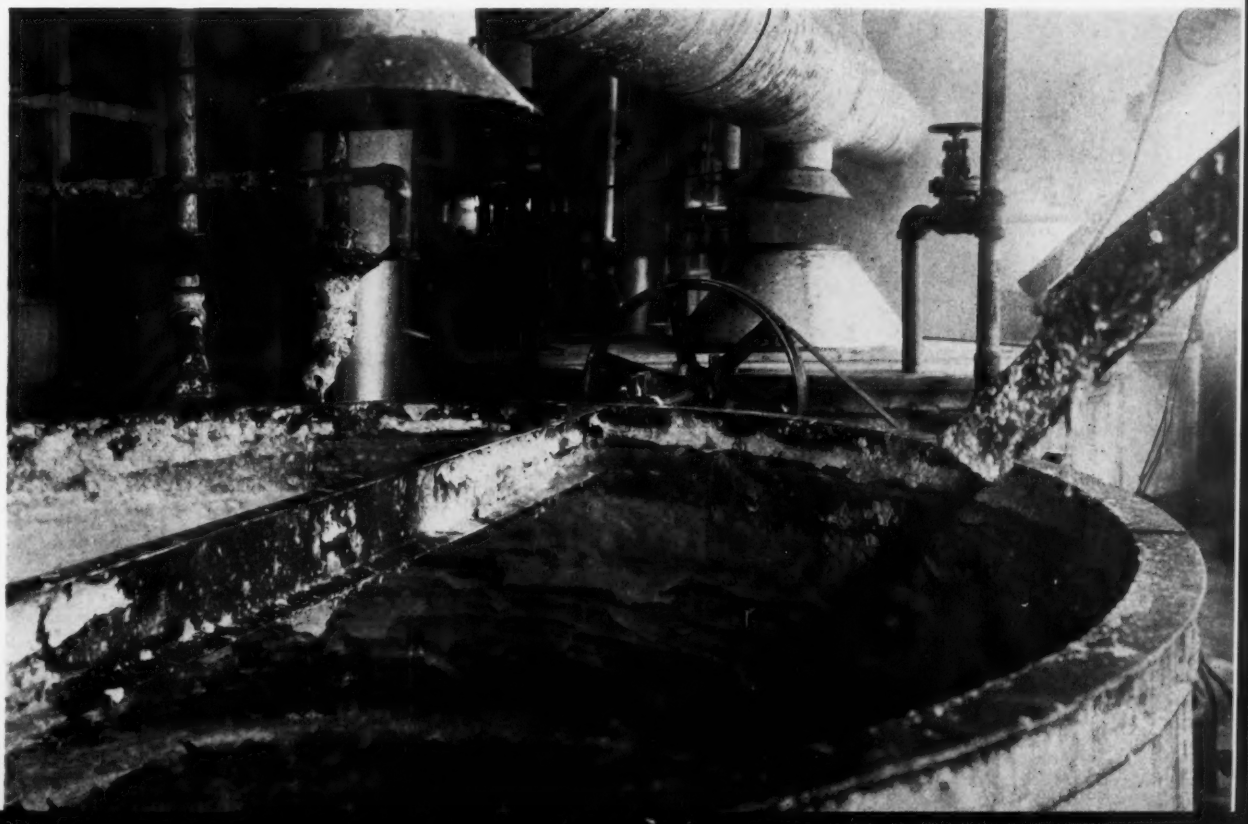
Tucum oil, which can be used for both edible and soap purposes is obtained from several varieties of *Astrocaryum* palms, native to Central and South America. Two oils are obtained from the fruits of these palms, one from the fleshy portion.

SOAP KETTLE

By Margaret J. Hausman

which resembles ordinary commercial palm oil, and other from the kernel, which is, on the whole, similar to commercial palm kernel oil. Both pulp and kernel oils make suitable edible products, when properly refined, and are desirable, also, for soap manufacturers. A common variety of tucum kernels contains from 45 to 52 per cent of a firm, creamy white solid fat. When refined, this fat has a saponification value of 240 to 249, iodine number of 11 to 14, titer of 26 to 27° C., and unsaponifiable matter amounting to 0.3 per cent. These kernels make up about twenty per cent of the whole fruit. The pulp, making up about thirty per cent of the fruit, contains from 35 to 38 per cent of oil. This oil has a saponification value of 220, an iodine number of 46.4, and 0.75 per cent of unsaponifiable matter.

Used mostly for food purposes, the oil obtained from murumuru nuts possesses the most desirable characteristics of all of these oils for soap use. It is a hard, white fat, which melts at 33° to 35° C., with a saponification value ranging



from 237 to 247, an iodine number of 10.8 to 13, and 0.7 per cent of unsaponifiable matter. Furthermore, it consists of about 39 per cent lauric acid and 34 per cent myristic acid. Murumuru nuts also grow on a palm of the *Astrocaryum* family, found in Brazil, but they are only thinly covered by a fiber which does not yield any oil.

Ucuhuba Butter

A LIGHT-BROWN, waxy-looking solid, ucuhuba butter is obtained from the seeds of a tree belonging to the *Myristicaceae* family, native to South America, and found particularly in Brazil. The seeds are oval-shaped, with thin, easily removable shells, marked with thick black lines. They weigh from one to three grams and contain about eighty per cent of kernel, in which about seventy per cent fat is present. Ucuhuba fat contains a very small quantity of essential oils, but is believed to contain a valuable resin. Recently about one hundred tons a month were being brought into the United States, but supplies are now limited, pending the production of a new crop in April. It is believed that about two hundred tons of the fat a month, or possibly more, could be exported from Brazil, provided that a steady demand were built up. Although a few soap makers bought some ucuhuba butter, for the most part, importers found it extremely difficult to sell the supply of this fat which they had on hand. At one time, a large soap concern expressed the opinion that they would be interested in using ucuhuba fat if they could obtain about five hundred tons a month, but nothing seems to have materialized in this direction.

To all appearances, ucuhuba, being a solid fat, and having a saponification value of 218 to 228, could be used very satisfactorily for soap making. Furthermore, it is a general characteristic of fats from the seeds of *Myristicaceae* that they contain large quantities of glycerides of myristic acid, thus pointing to very good lathering properties in soap made from the oil. It is believed that this fat, when properly refined, could be used for edible purposes, but there is no record at present of such disposition. Ucuhuba fat, which generally has an iodine number of from 13 to 16, contains from 1.5 to 3.2 per cent of unsaponifiable matter. It melts at 42-47° C.

Jaboty tallow, obtained from the seeds of a South American tree, commonly found in Brazil, has a saponification value of 228 and an iodine number of 23.1. It would seem to be valuable for soap making inasmuch as it consists of 28 per cent of myristic acid, and has a content of unsaponifiable matter amounting only to 1.6 per cent. The fat is greenish gray in color, waxy, hard and brittle, and has a strong coconut-like odor. It melts at 40° to 46° C. The crop of jaboty, however, is small. Exploiters have never shown much interest in this material. Working with it is difficult and has not received much encouragement. From one hundred tons of green seeds, it is reported, only eighteen tons of dry seeds are obtained, yielding only five tons of fat.

Although none of these fats are available in any way resembling a steady supply now, there always exists the possibility that, if they are tried out, and found valuable, and if a demand for them is built up, interest may be developed and means found for organizing an industry to produce them. Something of this sort is happening with babassu at the moment. Although the difficulties encountered in building up an industry such as this to a commercial scale are emphasized, centering about transportation, labor, and other native handicaps, past events have shown that where there is a strong enough driving force behind efforts of this type, most obstacles can be overcome.

That there has not been much activity in recent years in developing new commercial fatty raw materials is readily accounted for. With demand and prices sharply cut by economic depression, and with a fairly free flow of goods between producing and consuming centers, there was little incentive to seek out new materials. Now, with the tables turned by a sudden precipitation of forces which have been gathering momentum for a long time, there is little telling what strides may be made in new directions. At any rate, there are no limits to what may be expected for the future, regardless of how long development takes. Prospects of any proportions for the exploitation of new products can be based logically on the fact that most of these materials are available in great abundance.

As far as soap makers in the United States are concerned, the discovery of materials such as these and possibly many others carries much significance in that they occur mostly in Central and South America, while supplies from other foreign sources grow more and more insecure and while amicable Pan-American relations become more firmly cemented.

Olive Oil Substitutes

WHEREAS the present frantic search for substitutes for coconut oil is a thing of recent origin, there has always been wide activity in olive oil substitution. Olive oil, for both edible and commercial purposes has consistently commanded high prices. Well warranted have been continued efforts on the part of many workers to find materials which can be obtained more cheaply and can be passed along as pure olive oil, usually defying detection. In the edible line, adulteration has run the gamut of cottonseed oil, rapeseed oil, peanut oil, sesame oil, and, more recently, teaseed oil.

The development of fairly conclusive tests for the presence of these oils, except teaseed, has not deterred olive oil adulteration in the past. For edible purposes, where the rich flavor attained by careful preparation of oil from properly matured fruit without the use of chemical treatment is so highly prized, there have been placed on the market lots of oils which have been adjusted to iodine numbers and titers similar to olive oil, flavored with olive flavor

and colored to the desired tint, and sold at olive oil prices. For commercial purposes, the premium commanded by olive oil is based on certain characteristics results achieved with olive oil soaps and other olive oil preparations, which cannot be secured with products made from other oils. A number of years ago, it was discovered that teaseed oil could be mixed with olive oil, or even in some cases sold 100 per cent for olive oil, without betraying its presence. Attempts to detect it were futile until a few months ago, when a United States Government test was announced, which has, so far, proved quite reliable.

Teaseed Oil

TEASEED oil is produced in large quantities from the seeds of several varieties of the camellia plant,—closely related to the tea plant, but not identical with it. It is produced on a smaller scale in Japan, and also in French Indo-China and India, where the oil is used by natives for medicinal purposes. The same tea shrub is known to exist in Australia, Java, and Borneo, but the Australian plant has never been exploited. In Java it has been harvested and the seeds pressed, an oil claimed to be almost identical to the Chinese product being obtained.

Tea plants, which are produced from seeds, grow on hillsides and must be carefully cultivated for a few years. After they have become well established and have reached a height of about three feet, they do not require much attention. The shrubs flower in early spring, and in October or November, their round, reddish-brown nuts are ripe for picking. The nuts are from one to two inches in diameter, consisting of a smooth outer husk containing three or four kernels, which have a husk covering the oil-bearing material. After the nuts are gathered, they are spread out in the sun so that the outer husk cracks, becoming easily removable. Then the seeds are left in the sun to dry thoroughly and are stored. When the oil is to be prepared, the seeds are ground to a meal, steamed, and pressed in native mills. The press cake is used in a variety of ways, among which are as an insecticide, as a fuel, and as a substitute for soap for laundering purposes.

Most of the oil exported from China is packed in casks or baskets lined with oiled paper and sent to Hongkong and other Far Eastern places. Hongkong re-exports a great deal of the oil, chiefly to Great Britain, Canada, and the United States. Some of the oil bought by these countries, however, is imported directly from other parts of China. Teaseed oil in turn is usually slightly adulterated with sesame oil or cottonseed oil. In all probability, this adulteration is not always intentional, but is due to the use of casks for teaseed oil which formerly contained these other oils and have not been cleaned.

For more than a decade teaseed oil has been imported into the United States. At first, it was used chiefly for sulfonating, in place of olive oil. As the price of olive oil has increased, teaseed oil has been finding a wider market. It has been used to replace olive oil completely in some soaps, and has also been blended with olive oil for other types of soap. A good deal of teaseed oil is finding its way into the manufacture of esters, and it is also used in the preparation of synthetic gums.

Making edible products out of teaseed oil has been a more recent development. At first, on account of impurities in the oil, such as saponin, and the characteristic odor of the oil, it was thought that it would not be possible to use it for edible purposes. By the use of strong vacuum deodorization, however, and by refining and bleaching, an odorless, practically water-white oil, results. Teaseed oil is more difficult to refine than most oils which go into food channels, and the refining loss runs quite heavy, amounting to eight per cent after the oil has been bleached and neutralized. The cause of the trouble encountered in refining the oil is believed to lie in the presence of colloidal matter, the character of which is unknown at the present time.

Detecting the presence of teaseed oil in a doubtful sample of olive oil has been difficult because the fatty acid components of teaseed oil and olive oil are almost identical. At one time it was believed that teaseed oil differed from olive in the absorption of ultraviolet light, but testing by this method was proved unreliable. Titer tests and various color tests have also had to be discarded. The test now considered conclusive was developed by J. Fitelson, of the U. S. Food and Drug Administration in New York City, and was published in August, 1936.[1] It is based on the knowledge that teaseed and olive oils differ mostly in the nature of their unsaponifiable matter. Various sterol color tests were applied to the unsaponifiable matter of olive oil and teaseed oil and the Liebermann-Burchard reaction for cholesterol, in which chloroform, acetic anhydride, and sulfuric acid are added to the unsaponifiable matter of the oil, was modified until a specific color reaction was obtained for teaseed oil. A deep fluorescent color, green by reflected light and brown by transmitted light was obtained with teaseed oil. Olive oil and the other common edible vegetable oils show a green color with this test, and occasionally olive oil gives a green-brown fluorescence. When anhydrous ethyl ether is added, however, teaseed oil produces an intense red color, which slowly fades to light brown. None of the other oils shows this deep red, although it was found that olive oil sometimes shows a faint tinge of pink, before fading to light brown. Later the test was simplified by the discovery that these colors could be obtained directly from the oils as well as from the unsaponifiable matter, after suitable adjustment of the concentrations of the reagents.

Among other oils whose chemical characteristics imply that they could be used as substitutes for olive oil for technical purposes, and those which have been used for years for

[1] Journal of the Association of Official Chemists, August, 1936, p. 493-497.

similar purposes are castor and peanut oils. Castor oil has been used for many years in the textile industry, both as Turkey red oil and to a limited extent as a soap oil. It is claimed that the presence of castor oil in soap increases its lathering power and its solubility in cold water. Selling, as a rule, at a substantially higher price than ordinary soap oils, castor oil has never been considered in the class of common soap materials. At the present time, however, its price range is in line with that of most soap oils and does not present a barrier to its use. Castor oil resembles olive oil in its iodine number, which is usually from 82 to 90, and in its saponification value, which ranges from 177 to 187. Its composition, however, is different from that of olive oil, in that it consists of eighty per cent or more of ricinoleic acid.

Obtained from the seeds of the plant *Ricinius communis*, which grows in most tropical and subtropical regions, commercial castor oil comes chiefly from India, China, Mexico, the West Indies and South America, with India the largest producer of seed. Considerable quantities of castor beans have been grown at times in parts of the United States. Only two grades of castor oil are now being sold in the United States, the low acidity, clear, nearly-colorless, No. 1 oil, and the darker No. 3 grade. When prepared in the United States, a bushel of seed, equivalent to 46 pounds, yields about fifteen pounds of No. 1 oil and about four pounds of No. 3 grade.

Other oils are produced in Brazil and used locally by the natives for edible purposes, which show a strong similarity to olive oil. The most important of these, which might possibly be worked up to commercial importance at some future date, is known as batava, coumou, and patua oil. It is extracted from the fleshy part of the fruit of an *Oenocarpus* palm, commonly known as the pataua, is practically odorless and tasteless, and varies in color from yellowish-green to green. The oil has an iodine number of 78 to 80, saponification value of about 190, and titer of 17 to 18° C.

Dende and Kapok Oils

OIL of dende, a common item in Brazilian homes, has not been offered to any great extent as yet in the United States, but appears to hold considerable possibility for the future, mainly as a substitute for olive oil. Two oils are obtained from the fruit of the dende palm, that obtained from the pulp believed to be similar to olive oil, and the oil from the kernel considered to resemble commercial palm kernel oil. A few years ago, one of the large soap companies became interested in dende pulp oil for making a medicated soap. Local analyses performed on samples of dende oil in Brazil show an iodine value of 78-83, titer of 22 to 30° C., and a saponification value of 199.

Kapok oil, pressed from kapok seeds, which are a by-product of the fiber industry,—is similar to olive oil in chemical characteristics such as saponification value and iodine number, but has many of the characteristics of cottonseed oil. It gives the Halphen color reaction much more strongly than does cottonseed oil. Kapok trees are cultivated for the fiber industry, by far the largest proportion being grown in Java. Increasing numbers are being produced in Ceylon, India, Indo-China, the Philippines, Malaya, and South America. The trees also grow in many parts of Africa and are cultivated in Tanganyika and Togoland. Kapok fruits are oblong pods about six inches long and two inches in diameter, containing fibers attached to the inner walls of the pod and seeds made up of sixty per cent of kernel and forty per cent of shell. Around forty per cent of oil is present in the kernels.

Most of the kapok seed output has been exported to Europe to be pressed, with Holland the foremost producer of the oil. It is reported that there are large quantities of kapok in Brazil, which are not obtained for export purposes. It appears that natives use the fiber and either press the oil themselves and use it as fast as it is prepared, or else throw the seeds away. Depending on its quality, kapok oil varies in color from yellow to brown and is used both for edible purposes and soap making. It has a saponification value of 189 to 195, iodine number of 86 to 98, titer of 27 to 32° C., and unsaponifiable matter amounting to 0.8 to 1.6 per cent.

In 1935, when there was no duty or excise tax on kapok seeds, imports into the United States amounted to some 13,000,000 pounds, equivalent to a little more than 2,000,000 pounds of oil. The excise tax of 1936 imposed a tax of two cents a pound on imports of kapok seed, which amounts to over ten cents a pound on the average oil yield and a tax of 4½ cents per pound on imported kapok oil and fatty acids. These taxes will, in all probability, prevent imports to a very large extent even at present oil prices.

Illipe Butter

ILLIPE butter, also known as mowrah butter, appears in odd lots on the American market from time to time. Recent imports have been recorded, although available lots were bought up rather quickly by soapers. This oil resembles tallow in the soap kettle. With a saponification value of 206.5, iodine number of 58, and a content of sixteen per cent of myristic acid, it is valuable for soap making. It is pressed from the seeds of the fruits of trees indigenous to India, and, in the crude state, varies in color from yellow to green. The oil can be refined to a practically colorless product, with a slight, pleasant taste and odor.

Although there have always been certain fairly well-defined classes of fatty materials for various purposes, such as for food, for soap, and for paint manufacture, recent technical advances (as well as high price levels) have tended to blur demarcation lines, making it possible, in a pinch, to use for one purpose or another, oils which ordinarily find only

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SHAMPOO PACKAGE

A story of how and why packages for two new items of a family line were designed by Martin Ullman for a company with limited capital

By M. E. Lerner

ADVERTISERS have long and rightfully argued that a product backed by a respectable appropriation embracing trade and consumer coverage, dealer helps, premiums, etc., will win sales. But what of the product that lacks a "respectable" advertising appropriation? By what means shall a newly-organized concern, perhaps with limited capital, secure product recognition? In what manner shall such a company launch a new line? The story of *Ryko* Shampoo and Dandruff Remover, currently being introduced, furnishes an interesting study of these manifold problems. If Ryko meets with permanent success, it will furnish a solution of many of the problems of the small manufacturer.

A group of seasoned proprietary medicine men, headed by Henry Thorburn, organized not long ago Ryko Products, Inc., at Atlanta, Georgia. Pooling resources, they took stock of their position: (a) they were entering a highly competitive price field; (b) the products would have to compete against nationally advertised items; (c) they had a limited capital to work with; (d) because of quality and higher raw materials cost, they would have to offer a smaller quantity than competition for the same amount of money.

In many cases product recognition can be secured solely through package shape. But this involves expensive, individual dies and molds. Often these original molds must be discarded for newer ones when market testing reveals flaws in their actual consumer use. Ryko, therefore, made the logical step taken by companies faced with the necessity of market-testing before assuming large initial packaging costs. They turned to stock bottles.

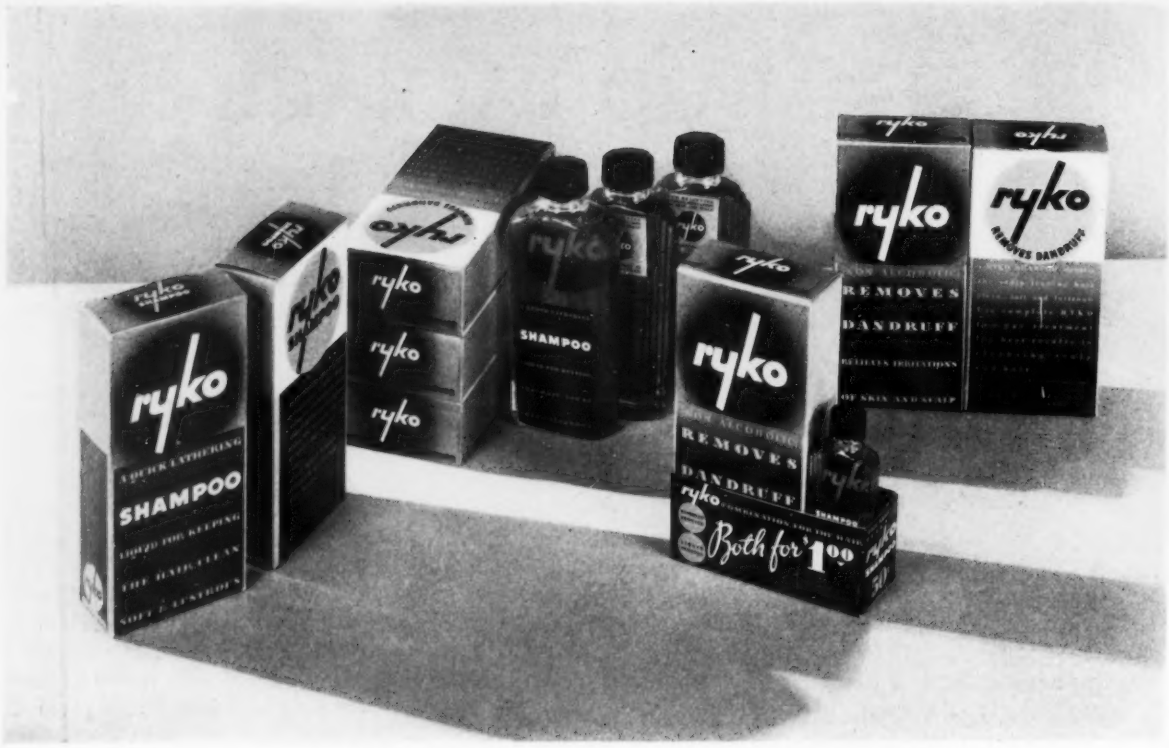
Note that Ryko's organizers comprised a group of seasoned patent medicine merchandisers. Were new patent medicine items being introduced, it is probable that they would have designed their own packages. But, they were specialists in the medicine field.—and appreciated that fact. They caught the tempo of the times. As merchandisers, they realized the trend in the major phases of business in the last decade.—specialization. They called in a seasoned package designer, Martin Ullman. They employed specialized experience to help overcome the lack of pre-selling advantages enjoyed by well-publicized, well-advertised older products.

Stock bottles, to attain the so-termed modernistic effect, invariably have narrow, ribbed sides. Examine any drug store shelf and you find these bottles give a shallow effect. Labels typical to these bottles cover the complete surface. In treating with the stock bottles for Ryko's two initial products, the designer took exception to the rule. He utilized both front and back surfaces of the bottle, using two labels, one complementing the other. The label on front extends two-thirds up the surface; the label on back extends one-third from the top. Why? As Mr. Ullman points out, this label treatment serves three purposes: (1) it creates an impression of size value; (2) it permits accentuation of both company and brand name; (3) it stresses the purity and clarity of the product itself.

Not only do these front and back labels complement each other, but both sides of both labels are utilized for copy. Consider this point. Products of many kinds, especially those currently being introduced by Ryko, require much descriptive copy. The text actually carries the burden of selling. Use of front and back of both labels on Ryko products gives the designer opportunity for complete product description. Spacing is so arranged that the respective messages of both sides of the individual labels are clearly legible.

Label treatment differs in other respects. Too often, the front surface alone is employed. Where front and back labels are utilized, there is generally little variation between the two. Ullman has avoided facsimile treatment, each back label receiving separate consideration so that even when seen from the rear each Ryko bottle tells a quick and complete story of the product and its uses.

For design, the circle motif was adopted. Use of this motif always serves to draw the eye to any message within the circle. It is strong



No matter at what angle, the bottle and its carton are examined, or how they are displayed on the druggist's shelf, "Ryko," the product name is visible.

design. On the dandruff remover bottle, the circle motif is used on both product and brand name. The front surface label features the word, "ryko," in white lettering against a brown circular background. Directly above this circle, through the bottle itself, is seen the simple phrase "removes dandruff" which appears in circle motif on the reverse side of the back surface label. Sales are gained for Ryko by directing target attention to its greatest potential market by the label treatment in this manner.

Ryko has another important function besides removing dandruff. This function is quickly explained by the use of three horizontal type lines on the front surface label, "relieves irritations of skin and scalp." This message, as well a brand name is repeated on the front surface of the label on the back of the bottle, while the reverse side of the front surface label carries complete directions for product use. A secondary use of the product,—relief of athlete's foot,—is suggested by type matter which appears on the lower part of this latter label side.

On the shampoo bottle an oblong-shaped label is used on the front surface. No brand name or company name appears on the face of this label, accentuation being devoted solely to product name. Both brand and company names appear on the label, circular in shape, affixed to the upper part of the back of the bottle. Brand name appears on the reverse side of this label, that is the one which is seen through the liquid content, while company name is restricted to the front side. Both brand and product names are featured in white lettering against solid green backgrounds (green and yellow being the color scheme) so that the eye catches both messages simultaneously. Because product name, shampoo, is in the foreground it has the greater accent.

Here again horizontal type lines are used for giving a quick version of product use and stressing certain advantages, i.e., "a quick lathering shampoo liquid for keeping the hair clean, soft, and lustrous." Like the labels on the dandruff remover, both sides are used for copy, directions for use being printed on the reverse side of the front surface label, repetition of brand name and product use appearing on the front side of the back label.

While the messages which appear on the labels on the back of the bottles are clearly legible through the liquids prior to purchase, they become more prominent as the liquids are consumed in use. This serves to impress the user with both brand and product name in both cases. Brand and product name stress secured in this manner, while the product is in actual use, leads to repeat sales. Too many manufacturers concern themselves with initial sales only, with little thought to repeat possibilities, according to Ullman.

Economy was also practiced in the selection of closures. Ribbed molded caps, of the stock type, were chosen to top off the Ryko bottles be-

cause this style of closure lends height to bottle size. The cartons housing these two products follow through on both color and design treatment. The front of the cartons are replicas of the front bottle labels. The back of the shampoo carton contains instructions for use. The back of the dandruff remover carton, however, varies slightly in that it is devoted to a selling message on Ryko Shampoo.

The circle motif is repeated as the design feature of the cartons, the tops, flaps and sides of which repeat product name. In designing both cartons, Ullman took into consideration the fact that while the company expected its dealers to use the main display face to show the product, dealers are lackadaisical in this respect and often lay the cartons flat, or stand them up sideways. No matter how Ryko cartons are placed on the dealers' shelves they show brand name, product name and company design color scheme.

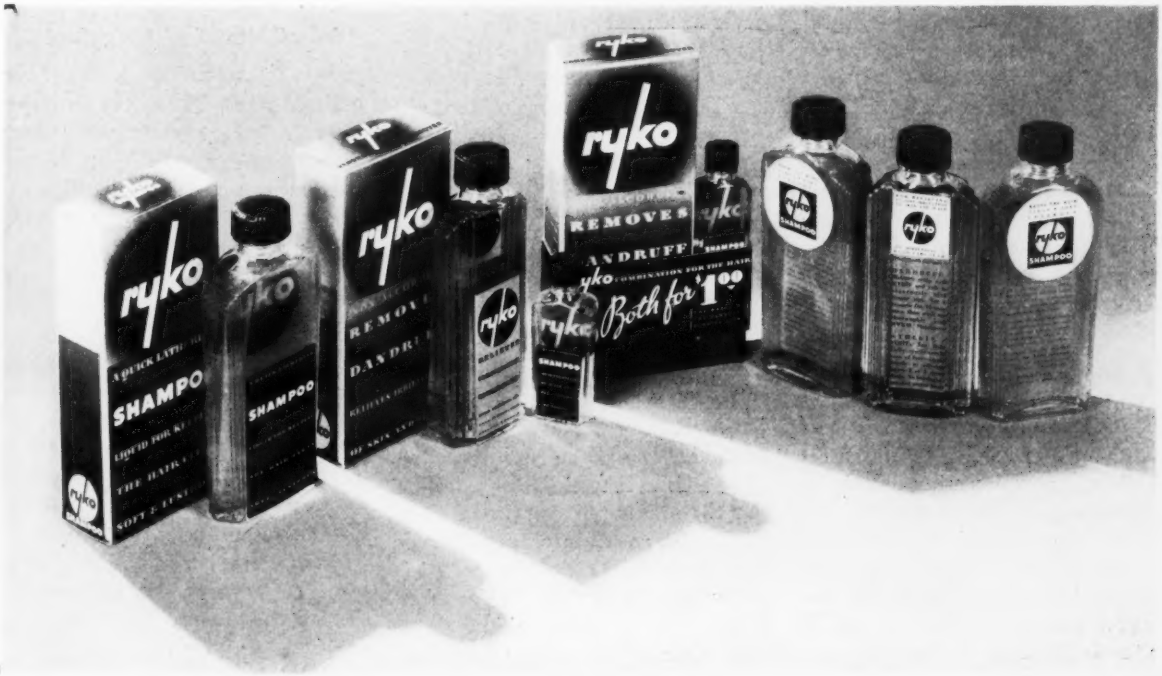
Use is also made of the side panels under the top flap, one of them representing a package innovation. One of these panels carries the message, "Ryko is guaranteed to give satisfactory results or your money refunded." The other carries a single letter within a circle, and company name and address. As, if and when Ryko Products, Inc., decides to embark on a premium program, these flaps are ready to perform. Consumers will simply have to remove the single flap and return it (or several of them in accordance with the premium plan) to the company. The letters within the circles instantly tells Ryko whether the flap, or flaps, are from shampoo or dandruff remover cartons, different letters being used on cartons for different products. Use of the carton panel in this manner is comparable to keyed coupons in magazine advertisements.

In each of the steps described is a definite plan to group these two and coming Ryko products in a family relationship. No stereotyped design, considered good merchandising by so many manufacturers (a fallacious idea which has been disproved many times in modern packaging programs), is employed in this relationship. Labels on Ryko dandruff remover and shampoo follow no set style. They are not identical in size, color or design. Even the bottles, stock items both, are unlike one another with the exception that the basic packaging plan holds the entire line related.

Family relationship is instantly discernible. Consider the label treatment on front and back surfaces, —the auxiliary copy provided for on the face of front surface labels,—circle motif,—color differentials, and yet harmonious,—carton design. All of these separate factors serve to remind one product of the other. A definite theme is distinguishable, yet the full line of packages (and others to follow) avoid rubber stamp treatment. Think of Campbell's soup tins. Or the majority of Heinz' 57 Varieties. Ryko packages cannot be confused with each other or with competitive products. Ryko Shampoo cannot be mistaken for Ryko Dandruff Remover. At the same time, a glance at either package reveals it as a Ryko product. In a third Ryko item in preparation,—a separate remedy for athlete's foot, the same treatment is being given the package, but the design will be varied, the color scheme,

♦

Both sides of both front and back labels are utilized for copy, obviating need of separate booklet of instructions for use.



—red and yellow,—will be different.

At present, Ryko shampoo and dandruff remover items are being sales-tested in Providence, Washington and Atlanta. Limited advertising campaigns are placed behind them in each city. Special attention to package reception is being made, particularly its effect on repeat sales.

As an introductory offer, the company is giving a combination of a full bottle of Ryko dandruff remover and a trial size bottle of shampoo, both for $1.00, the price of the dandruff remover alone. Both packages are retailed in a short sleeve, all four sides of which are utilized to tell a separate sales story. One side gives prominence to the combination offer and price. One panel quotes the full size shampoo bottle price; the other carries the company's money-back offer. The back surface of the sleeve stresses the value of using both dandruff remover and shampoo in combination. Even the bottom of the sleeve carries a sales message, "Guaranteed by Ryko Products, Inc., Atlanta, Georgia."

A word should be devoted to the trial size bottle of shampoo in this special introductory combination offer. Package economy was again practiced by the use of a small stock bottle. The label treatment featuring the regular size shampoo bottle was used. Rather than going to the expense of bottles with the words "trial size" molded in the glass itself, the reverse side of the front surface label is utilized to tell the world that this is a "trial size bottle, not for sale." In all other respects, this smaller bottle is an exact replica of the larger, even to the ribbed sides and ribbed molded caps.

The function of a package is to create sales. Designer Ullman goes further. He states that its *prime* function is to create sales; its *full* function is to hold sales, via repeat business. In preparing the Ryko packages for the market, Ullman carefully considered both of these package requisites. This is evident in the finished packages, as is the successful attempt to plan and execute a family line while maintaining package individuality. Because of these reasons, and because of the early sales results of the Ryko test campaigns, the plan behind the launching of these products should prove of pertinent interest to other manufacturers.

Potash Soap Prices

(*From Page* 27)

soap—the manufacturers all certainly have a problem of how much it costs to do business and what real good could be accounted for by this we do not know."

B. "We believe that there can be a very definite formula for the calculation of these particular selling prices and selling specialties because of the fact that we ourselves have such a formula which we use which is completely enveloped in our accounting system. We do not believe that it would be a very simple formula with one line but rather a complicated procedure, fully covering all costs."

C. "I think it would be well to set up a definite formula for calculating the proper selling price of soap specialties as some of our competitors seem to think that if a product cost 5c they can sell it for 5½c and make money."

D. "While we would be in favor of the publication of a definite formula for calculating the sales price of soap, but we doubt if a sufficient number of manufacturers would adhere to this to make it practical."

E. "There might be set up for publication a definite formula for calculating the proper prices for soap specialties. It seems to be a very simple formula, when the price of vegetable oils and potash also the overhead is taken into consideration, to arrive at proper prices."

F. "No, we do not believe that there could be set up by publication, a definite formula for calculating the proper selling price of soap specialties, potash soaps, liquid soaps etc. according to the raw material cost. This is due to the fact that manufacturing costs, selling costs, and administrating costs vary. Yet, these costs are just as much part of the finished product as the raw materials that go into it. For any definite formula to be set up, and which would be acceptable to all of the industry, the formula would have to take care of the high priced producer. That being the case, the low cost producer would immediately under-sell him, and we'd be right back where we started from."

G. "We question very much the ability to set up a definite formula for calculating price of potash soaps, liquid soaps, etc. So much depends upon individual conditions. You are also dealing with different commodities. As a rule, paste soaps are sold closer than liquid soaps for various reasons. A fairly definite formula might be set up for each item. They could all not be grouped as a whole."

H. "No, as every manufacturer's costs are different. Large manufacturers who buy carloads of potash and oils usually have a lower cost than smaller manufacturers buying in less than carload lots."

J. "Do not believe it could be worked out very well, as there are always a certain class of soap manufacturers that will sell for what we think is less than it is possible to do business on."

What Manufacturing Cost?

Question No. 6. Will you estimate roughly what are the manufacturing costs over and above the cost of the oil in the production of soap specialties, such as oil soap, liquid soap, etc.?

All sorts of figures are given here. Estimates place the manufacturing cost alone at between 20 per cent and 30 per cent over the cost of raw materials. One manufacturer states that his cost of manufacture,—over material cost,—for oil soap is 2.6c per pound. In fact, the figures above, 20-30 per cent, seem very high in the present oil market. However, these estimates were made several months ago before the market had reached anything like its present levels.

A. "It would be impossible to

estimate roughly the manufacturing cost over and above the cost of oil for all manufacturers engaged in this business. We know—or think we know, our own costs, but these would not serve as a guide for the industry in general. That's an individual question."

B. "Roughly, the estimated overhead should be in the neighborhood of 20 per cent."

C. "Material should be raised at least 25 per cent to take care of manufacturing cost."

D. "Manufacturing over and above the cost of oil, are, of course, determined to a great extent by capacity and volume, assuming, however, that you are referring to a business with an organization and doing a fairly wide interstate business. We would say they are as follows:

Freight and Cartage on Sales	5- 8%
Freight and Cartage on Purchases	2- 3%
Factory expense, including salaries, rent, fuel, light, heat, maintenance and depreciation	7-10%
Selling	5-10%
Administrative Costs (including salaries, office expense) rent, postage, stationery, insurance, taxes, communication costs, discounts, general expense	7-10%

"A good business should yield a profit of from 5-10 per cent of the gross sales. Merchandise percentage of costs would, of course, depend on the selling price. We imagine most manufacturers have a merchandise cost of from 55-60 per cent."

E. "This would be hard, as different manufacturers have a different set-up in their manufacturing cost."

F. "On the basis of sales to the jobbing trade in order to gain a profit of 5 to 10 per cent on the gross volume of business to the jobbing trade, we would answer in the same way as we have answered the first paragraph, namely, that 40 per cent of the selling price should be gross profit. Any organization established with executive administration forces cannot do business on less than this. In the case of where resalers are sold additional risks are incurred, considerable additional expense for selling is also a factor, and we should say that at least 60 to 65 per cent of the selling price should be gross profit. In order to secure a volume of business on a retail basis it takes a considerable amount of effort, additional delivery costs, additional office help, longer term accounts and additional risks."

G. "Cost of potash; cost of containers used in shipping; cost of labor in manufacturing and handling of raw and finished materials; warehouse and shipping expense of raw and finished materials; laboratory control."

H. "Our manufacturing cost over our cost of the oil is naturally a complete setup of the overhead of our business, which includes our complete selling expense, our complete advertising expense and our complete administration expense. Naturally, these are more or less standard but all factors of costs are taken care of. This is handled by an outside auditor who makes sure that we have a complete overhead when we price the material."

J. "It costs us roughly 2.6c per lb. to manufacture a pound of oil soap plus delivery."

(*Discussion to be concluded in next issue.*)

New Fats for Soap

(*From Page* 32)

limited use in the soap kettle. By means of hydrogenation, liquid oils containing large percentages of unsaturated acids, which were formerly barred from the soap kettle because they produce soft soaps which turn rancid rapidly, have gained entrance. Today the chief requisites for an oil to be used in soap are that it occupy a favorable price position and be available in fairly steady supply. Extra expense entailed by special treatment is justified if the final price of the material is competitive with other fats. At the moment linseed oil on this basis appears superficially to be the most satisfactory soap material available, but, inasmuch as the supply of linseed is actually very limited, the crop this year having been extremely small, this oil does not appear to hold much promise for the soap maker, although it has been a recent haven for the potash soap manufacturers.

Linseed oil, which makes up 32 to 43 per cent of the seed of the flax plant, is obtained from many countries, chiefly Argentina, Canada, China, India, Russia, and the United States. Distinctly different varieties of flax are cultivated for the production of fiber and for seed, with the yield of seed generally smaller in the case of plants grown for fiber. There are considerable variations in records of the composition of linseed oil, and there is also a wide range in iodine numbers, varying from 170 to 204. The saponification value of the oil appears to be around 189 to 196, with the amount of unsaponifiable matter reported as 0.5 to 1.6 per cent. Soap stock and foots from linseed oil refining find ready demand from soft soap makers. With hydrogenation making possible the diversion of linseed oil for food purposes, the quantity available for soap becomes more and more limited. The demand for edible material drains much of the supply.

The development of the oiticica oil industry, which has become of importance only during the past year or so, is a kind of safety valve on the supply of fats for technical purposes. With little likelihood, for the time being, of oiticica going into food products, the oil has loomed on the horizon to offer encouragement to paint and varnish manufacturers who have been watching with alarm rapid depletion of stocks of time-proven standbys. Although the unpleasant odor which results in soap made from oiticica oil makes the oil rather undesirable for soap uses, under conditions such as exist now this is a less serious consideration.

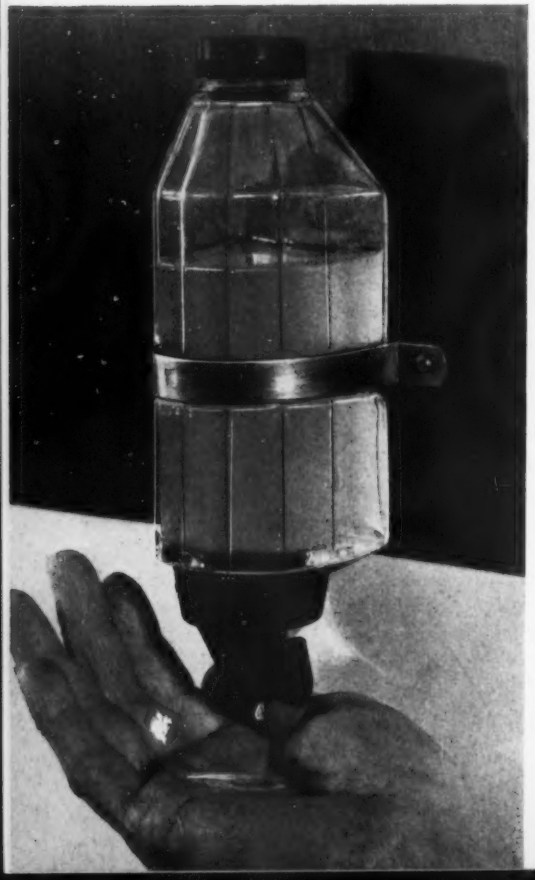
Oiticica oil, essentially a drying oil, is produced from the seeds of the tree *Licania rigida*, which is found in great numbers in the northeastern part of Brazil. Only the oil from these seeds, and not the seeds themselves, is permitted to be exported. Oiticica fruits consist of dark

(*Turn to Page* 73)

New Products

Mennen Brushless Shave has been repackaged in a handsome translucent glass bowl with a light-green lithographed composition cap. Also changes have been made in the adoption of a moulded composition cap for the skin bracer and antiseptic oil. Containers by Owens-Illinois.

McCormick & Company of Baltimore adopt a new container for their large insect spray packages. Five and ten gallon pour-pails, lithographed in the bright red and yellow color combination of the regular McCormick design. Pail by Wilson & Bennett of Chicago.



The lowest-cost liquid soap dispenser on the American market has no moving parts and no parts of metal. The dispensing unit is of flexible moulded rubber. Moulded plastic cap. Stated to be in practical use for past year by the inventor, William Rose of Jersey City.

and

Packages

A new package for Wilbert's Wonderful Cleaner,—redesigned under Wilbert Products' new package program by Egmont Arens. Black, orange, and blue color scheme,—similar to Wilbert's No-Rub Shoe White package, greatly simplified and striking. Closure by Crown Cork and Seal.

Novel carton construction for regular jar and small sample jar of Padola Brushless Shave manufactured by Padola Corporation, New York. Carton cut away to show jar arrangement,—money refunded if sample is tried and large jar returned. Carton by Robert Gair.

Listerine breaks away from the cork which it has used for years and goes over to a moulded closure. The bottle and label design are unchanged as is the product within. Closure made by Wheeling Stamping Company from Bakelite.

TURNER

CHEMICALS

CAUSTIC POTASH

CAUSTIC SODA

STEARIC ACID

TRI-SODIUM PHOSPHATE

CARBON TETRACHLORIDE

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Local delivery tank truck service throughout the Metropolitan New York area.

JOSEPH TURNER & COMPANY

RIDGEFIELD, N. J.

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40TH ST. & CALUMET
CHICAGO

NEWS . . . . . .

New Coast Soap Firm

House of Windsor, Ltd., is the name of a new concern engaged in the manufacture of soap, lotions and cosmetics at 667 South Clarence Ave., Los Angeles. The concern is owned by two brothers, M. and Carl Mitchell.

J. L. Hathaway Dies

James L. M. Hathaway, secretary and treasurer of Thomas Gill Soap Co., Brooklyn, died of pneumonia, January 23, at his home, 86-44 Grand Ave., Queens. Mr. Hathaway was seventy-two years old. He is survived by a son, James L. M. Hathaway, Jr., and two daughters, Dorothy and Maria Hathaway.

Colgate on Mfrs. Board

S. Bayard Colgate, head of Colgate-Palmolive-Peet Co., Jersey City, was elected a regional vice-president of the National Association of Manufacturers at a meeting of the board of directors held in New York, January 22.

On Diversey Sales Staff

Diversey Corp., Chicago, manufacturer of cleaners and sterilizers for food plants, has announced the appointment to its sales force of D. L. Edwards, Charlotte, N. C.; D. W. Melick, Grand Rapids; T. M. Mitchell, and H. H. Shelton, Albany.

Lever Safety Record

On December 31, 1936, the Cambridge, Mass., plant of Lever Brothers Co., completed a total of 1,543,287 man-hours since July 31, 1936, without a lost time accident, with the record still unbroken on this date. This figure surpasses the best previous record in the soap manufacturing industry, according to the National Safety Council, which was 1,200,731 man-hours made in 1933. National Safety Council figures also disclose that the Cambridge plant had the lowest accident frequency rate for the soap industry in 1935. This plant was awarded the Governor Curley Trophy in 1936 for the greatest improvement in accident experience during 1935 in the Massachusetts State-Wide Contest.

Albany Soap Election

Joseph Grober was again named president and general manager of Albany Soap Corp., Albany, N. Y., at the annual meeting held January 12. Other officers were also re-elected as follows: William C. Schopman, vice-president; William H. Geier, assistant manager; John H. Rea, treasurer; and Harry J. Geier, secretary.

Oklahoma Weighs Soap Tax

The new revenue bill before the Oklahoma legislature carries a tax of 10 per cent on the retail price of toilet soaps and toilet soap powders. Other items taxed under this section of the bill are principally luxuries, and a strong effort is being made to have the tax eliminated as far as it applies to soap sales.

Swift Soy Bean Mill

Swift & Co., Chicago, plan to start work soon on a $250,000 soy bean crushing mill at Champaign, Ill., it was announced recently by O. E. Jones, vice-president in charge of refinery and oil mill operations.

Maryland Soap Tax Expires

Maryland's 10 per cent retail sales tax on certain items, including toilet soaps, expires March 31. An effort is being made to prevent renewal of the tax as applied to toilet soap.

Repeal Kentucky Soap Tax

The Kentucky legislature has recently passed a measure repealing the Luxury Tax Act of 1936 which included a tax of 20 per cent on toilet soaps retailing for more than thirty cents a pound. The bill was subsequently signed by the Governor. The state will cease collecting the tax around April 15.

Estate of Mrs. Colgate

Mrs. Margaret Colgate of New Vernon, N. J., widow of Richard M. Colgate, former president of Colgate & Co., left a gross estate of $894,451 when she died approximately a year and a half ago, according to a transfer tax appraisal filed recently. Included in the estate were 1,167 shares of preferred stock of Colgate-Palmolive-Peet Co.

British Soap Prices Up

Widespread advances in soap prices have been made by manufacturers throughout the United Kingdom, according to advices from London, because of the marked increase in the price of fats and oils. The effect of the advances has been to put up retail prices some fifteen per cent or more. It is pointed out that whale oil has more than doubled in price from 1936 low levels, copra and coconut oil are up about fifty per cent, and palm oil is about thirty per cent higher.

Chinese Soap Imports Lower

During the first 9 months of 1936, China's soap imports experienced a decrease, being valued at 353,000 gold units as against 380,000 gold units during the like period of 1935. The United States' share of the trade, however, increased from 127,000 gold units during the first 9 months of 1935 to 144,000 gold units for the first 9 months of 1936.

Named Gold Dust Agent

Johnson-Locke Mercantile Co., 149 California Street, San Francisco, has been named by Gold Dust Corp. of New York as Northern California sales representatives for the Gold Dust soap division.

Bangalore Sandalwood Carving

Government Soap Factory at Bangalore, India, has sent out to some of its friends in various parts of the world, including the Editor of SOAP, a handsome miniature carving of Buddha on a small plaque. The carving is in one solid piece, done in native Indian sandalwood.

P & G Record Profits

Earnings of Procter & Gamble Co. for the quarter ending Dec. 31, 1936, were the largest in history for this period. Profits amounted to $6,730,202, equivalent to $1.02 a share on common stock, as against $4,278,857, or 64 cents a share for the same period in 1935 and, $6,629,564, equal to $1.01 a share for the preceding quarter. Total net income for the six months ended Dec. 31, 1936, amounted to $13,359,766, after the deduction of all expenses except surtaxes on undistributed profits, as against $7,883,363 for the same period in 1935.

P & G—Trailer Advertising

A national advertising campaign starting early this year has been planned by Procter & Gamble Co., Cincinnati, in connection with one of the large makers of automobile trailers. Pedlar & Ryan, New York, are in charge.

Czech Soap Prices Up

The Czechoslovakian soap cartel, formed fifteen months ago, has recently raised the retail sales prices of various kinds of soaps from 10 to 25 per cent. The advance was motivated by the higher cost of imported raw materials. The price for branded, unpacked toilet soap is now 11.50 crowns per kilo as compared with a previous price of 9.00 crowns per kilo. Imports of toilet soap into Czechoslovakia during 1936 (10 months) amounted to 21 tons valued at 451,000 crowns as against 26 tons valued at 604,000 crowns and 25 tons valued at 509,000 crowns during the calendar years 1934 and 1935. In 1934 and 1935, France was the source of 40 per cent of the imports followed by England with from 10 to 20 per cent, and the United States with from 8 to 16 per cent.

F T C Cites Babiglo Co.

Babiglo Co., New York, has been charged with the use of unfair trade practices by the U. S. Federal Trade Commission in connection with the sale of soap, which it represents to be olive oil Castile and of Spanish or Italian origin, when such is not a fact. According to the complaint the brands advertised and sold as "Castile Soap" made of imported oil are not manufactured, as claimed, from olive oil, but are highly adulterated soaps, saponified and mixed with other oils and fats, having for their fatty base large percentages of coconut oil, palm kernel oil and tallow, containing either a small percentage of olive oil or none at all.

Expand Laundry Research

British Launderers' Research Association, London, has expanded the size of its laboratories under the direction of Sir William Bragg and is extending its work in the study of soaps, soap solutions, and other detergents in laundering of cotton wool, silk, and the various artificial silks. In an experimental laundry which handles about a ton and a half of washing per week, the Association is attempting to set up standard commercial practices in laundering operations. Study of the effects of friction, temperatures, bleaching, and other factors in commercial machine laundering is being included. This technical association which has grown steadily in the past few years, now has a membership in excess of 600.

Mrs. Wrisley Dies

Mrs. Edith Wrisley, mother of George A. Wrisley, an executive of Allen B. Wrisley Co., Chicago, died early last month at her home in La-Grange, Illinois.

Bab-O Advertising Expanded

The Bab-O advertising appropriation for 1937 is double what it was in 1936, according to an announcement of L. J. Gumpert, sales director of B. T. Babbitt, Inc., New York. Additional stations are to be added to the five-day-a-week radio program, and newspaper tie-ups in 75 cities are to be used.

Oil Traders Meet

Some 350 members of the Oil Trades Association of New York, and their guests, held a regular meeting of the Association in the form of an informal dinner with floor show at the Waldorf-Astoria Hotel, New York, on Jan. 19. The meeting started at 7:00 P.M. on Jan. 19 and closed at 5:00 A.M. on Jan. 20. Ten of the Waldorf's largest waiters attended the closing ceremonies. Rudolph Sonneborn of L. Sonneborn Sons, Inc., president, conducted the opening ceremonies and the votes on two or three important matters with the aid of Charles V. Bacon, vice-president. Philip Meon, treasurer, also attempted to make a report with only mediocre success owing to the roaring goodfellowship of those present. The party was held in the Waldorf's Starlight Roof Garden, referred to undoubtedly in error by Pres. Rudy Sonneborn as the Starlit Roof. It was a very unique business meeting and was voted extremely unusual and successful by both mineral oil and fatty oil men who attended.

Hanshaw Heads Chicago Assn.

At the recent annual business meeting of the Chicago Perfumery, Soap and Extract Association the following new officers were elected: president, T. E. Hanshaw, Thayer Pharmacal Co.; vice-president, W. Kedzie Teller, Columbus Laboratories; secretary and treasurer, M. B. Vance, Givaudan-Delawanna. George A. Wrisley, the retiring president, was presented with a sterling silver tray in appreciation for his efforts during the past year. Also included in the program were reports by committee chairmen covering the activities of their committees during the past year.

Soap Plants Damaged by Flood

A NUMBER of important American soap plants have suffered severe damage from the unprecedented floods in the Ohio River Valley, according to such meagre reports as were available at the time of going to press. Most of the flooded plants were in Cincinnati and its outskirts. The great plant of Procter & Gamble Co., at Ivorydale, Ohio, was reported surrounded by ten to fifteen feet of water with operations at a standstill. The St. Bernard plant of P. & G., however (the old Globe Soap plant), which is only a short distance away from Ivorydale, but on slightly higher ground, was reported free of water. The office employes were stated to be working, but plant operations had been curtailed. M. Werk Company, also located in St. Bernard, was also free of water, but all plant operations had been stopped to conserve fuel. The plants of Emery Industries, and of the Twitchell Process Co., both in Ivorydale, just a short distance from the P. & G. plant, were reported under fifteen feet of water.

Colgate-Palmolive-Peet Co. reported their plant at Jeffersonville, Ind., to be flooded to the second story and completely evacuated. For four days at the beginning of the flood, the C-P-P plant housed 500 refugees from Jeffersonville. With the aid of 30 C-P-P employes, who remained on duty under the direction of plant superintendent, Harold Crooker, the refugees were housed and fed, and later evacuated by the American Red Cross. Although the damage to the Jeffersonville plant was believed to be great, no accurate estimate of its extent was available.

Other Cincinnati plants regarding which only vague information was available, are those of the Andrew Jergens Co., located on Springgrove Avenue and reported flooded and shut down. The plant of the Dubois Soap Co., located on Front St., Cincinnati, almost directly on the Ohio River bank, was believed to be the most seriously damaged soap plant in the flooded area. Such estimates as were available placed the plant under forty feet of water with practically complete loss of all stocks of soaps and raw materials on hand. Hunnewell Soap Co. was also reported badly flooded and closed down early by the rising waters. The plant and warehouse of the George H. Nowland Co., on Pearl St., was flooded to the second story, although all goods had been moved to higher floors in advance of the flood, limiting damage to machinery and fixtures. American Products Co., whose plant is on Colerain Avenue, was flooded up to the second story and all operations ceased during the first few days of the river's rise.

Auch on Flood Damage

R. H. Auch, general superintendent of the American Products Co. plant on Colerain Av., Cincinnati, and a well-known contributor to the technical pages of SOAP, has reported on the effects of the flood in soap plants in and about Cincinnati, and also other manufacturers of household products, and machinery. His report was sent at the heighth of the flood after the American Products plant had shut down with water up to its second story floors. He stated:

"The soap and general household products industries have suffered severely from the flood. Cincinnati has had the greatest rainfall in its history during this January, 13½ inches. The greatest previous month in history was 9.39 inches sometime in 1879. Average is 3½ inches. This accounts for the most terrible flood in history and a crest of practically 80 feet. It also accounts for the reason why many people felt rather smug and safe, and were caught flatfooted.

The Ohio is sweeping a full city block above the plant of the Hunnewell Soap Co. on Second St. downtown. The DuBois Soap Co. on Front St. has water in its second floor. The adjoining railroad trestle was utilized to move out stock, a bridge being hastily built from the third floor to load freight cars on the trestle. The state of their oil tanks is still a question.

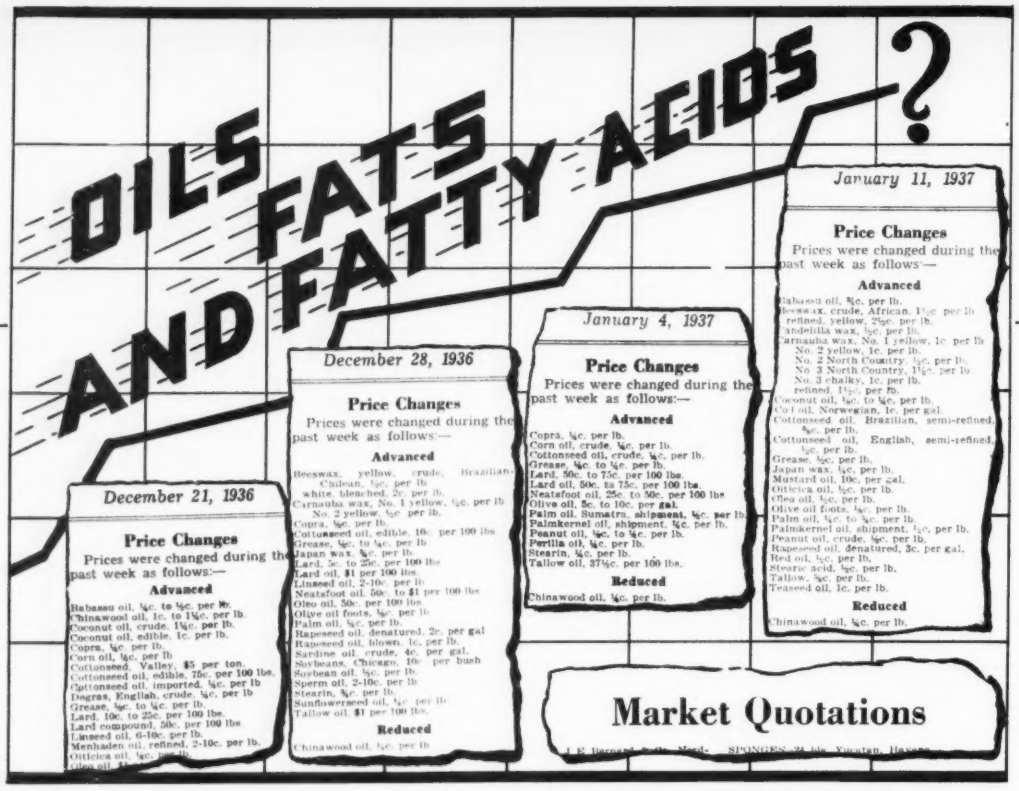
Mill Creek caught the Andrew Jergens Co. almost unaware when basements were flooded early in the rise. Water later touched the ceiling of their first floor, but not until after much stock had been saved by removal. This salvaged stock together with ample stocks on both east and west coasts leaves them in a fairly comfortable position. They have opened temporary offices in the Carew Tower. Rumor has it that their oil tanks may topple but other damage to equipment has thus far been slight.

Further up the valley, the American Products seven story concrete building, built to be above the crest of the 1884 flood, is flooded to within a foot of the second floor. Over one hundred male employes worked night and day removing stock to upper floors. One forelady stuck to the job with the men, Gertrude Urlage, directing the work of her twenty men through the night. American Products have temporary offices at the Hotel Gibson. Temporary plant offices are at the Camp Washington Business Club. Although the fire resulting from the gasoline leakage of the Standard Oil plant, spread for three and a half miles over the water, American Products escaped. The fire loss alone will run into the millions.

Two miles up Mill Creek, nine-tenths of the vast area covered by the Procter & Gamble great Ivorydale plants was inundated. The factory offices, edible oil division, framing houses, and soap warehouses were the hardest hit. There was relatively little damage to equipment. The Emery Industries plant across the creek was also under water. However, the Emery people have bent every effort to bring out loads of candles by boat, to aid the Red Cross, and domestic and store lighting where the power has been off.

The St. Bernard plant of P

(*Turn to Page* 135)


OILS FATS AND FATTY ACIDS ?
December 21, 1936
Price Changes
Prices were changed during the past week as follows:—
Advanced
Babassu oil, ¼c. to ¼c. per lb.
Chinawood oil, 1c. to 1¼c. per lb.
Coconut oil, crude, 1¼c. per lb.
Coconut oil, edible, 1c. per lb.
Copra, ¼c. per lb.
Corn oil, ¼c. per lb.
Cottonseed, Valley, $5 per ton.
Cottonseed oil, edible, 75c. per 100 lbs.
Cottonseed oil, imported, ¼c. per lb.
Degras, English, crude, ¼c. per lb.
Grease, ¼c. to ¼c. per lb.
Lard, 10c. to 25c. per 100 lbs.
Lard compound, 50c. per 100 lbs.
Linseed oil, 6-10c. per lb.
Menhaden oil, refined, 2-10c. per lb.
Oiticica oil, ¼c. per lb.
December 28, 1936
Price Changes
Prices were changed during the past week as follows:—
Advanced
Beeswax, yellow, crude, Brazilian, Chilean, ½c. per lb.
white, bleached, 2c. per lb.
Carnauba wax, No. 1 yellow, ¼c. per lb.
No. 2 yellow, ½c. per lb.
Copra, ¼c. per lb.
Cottonseed oil, edible, 10c. per 100 lbs.
Grease, ¼c. to ¼c. per lb.
Japan wax, ¼c. per lb.
Lard, 5c. to 25c. per 100 lbs.
Lard oil, $1 per 100 lbs.
Linseed oil, 2-10c. per lb.
Neatsfoot oil, 50c. to $1 per 100 lbs.
Oleo oil, 50c. per 100 lbs.
Olive oil foots, ¼c. per lb.
Palm oil, ¼c. per lb.
Rapeseed oil, denatured, 2c. per gal.
Rapeseed oil, blown, 1c. per lb.
Sardine oil, crude, 4c. per gal.
Soybeans, Chicago, 10c. per bush.
Soybean oil, ¼c. per lb.
Sperm oil, 2-10c. per lb.
Stearin, ¼c. per lb.
Sunflowerseed oil, ¼c. per lb.
Tallow oil, $1 per 100 lbs.
Reduced
Chinawood oil, ¼c. per lb.
January 4, 1937
Price Changes
Prices were changed during the past week as follows:—
Advanced
Copra, ¼c. per lb.
Corn oil, crude, ¼c. per lb.
Cottonseed oil, crude, ¼c. per lb.
Grease, ¼c. to ¼c. per lb.
Lard, 50c. to 75c. per 100 lbs.
Lard oil, 50c. to 75c. per 100 lbs.
Neatsfoot oil, 25c. to 50c. per 100 lbs
Olive oil, 5c. to 10c. per gal.
Palm oil, Sumatra, shipment, ¼c. per lb.
Palmkernel oil, shipment, ¼c. per lb.
Peanut oil, ¼c. to ¼c. per lb.
Perilla oil, ¼c. per lb.
Stearin, ¼c. per lb.
Tallow oil, 37½c. per 100 lbs.
Reduced
Chinawood oil, ¼c. per lb.
January 11, 1937
Price Changes
Prices were changed during the past week as follows:—
Advanced
Babassu oil, ¼c. per lb.
Beeswax, crude, African, 1½c. per lb
refined, yellow, 2½c. per lb.
candelilla wax, ½c. per lb.
Carnauba wax, No. 1 yellow, 1c. per lb
No. 2 yellow, 1c. per lb.
No. 2 North Country, ½c. per lb.
No. 3 North Country, 1½c. per lb
No. 3 chalky, 1c. per lb.
refined, 1½c. per lb.
Coconut oil, ¼c. to ¼c. per lb.
Cod oil, Norwegian, 1c. per gal.
Cottonseed oil, Brazilian, semi-refined, ¼c. per lb.
Cottonseed oil, English, semi-refined, ½c. per lb.
Grease, ¼c. per lb.
Japan wax, ¼c. per lb.
Mustard oil, 10c. per gal.
Oiticica oil, ¼c. per lb.
Oleo oil, ¼c. per lb.
Olive oil foots, ¼c. per lb.
Palm oil, ¼c. to ¼c. per lb.
Palmkernel oil, shipment, ¼c. per lb.
Peanut oil, crude, ¼c. per lb.
Rapeseed oil, denatured, 3c. per gal.
Red oil, ¼c. per lb.
Stearic acid, ¼c. per lb.
Tallow, ¼c. per lb.
Teaseed oil, 1c. per lb.
Reduced
Chinawood oil, ¼c. per lb.
Market Quotations

Every Week they're going up!

But the price of INDUSOIL remains the same

Market prices have moved upward steadily for months and stocks of soap oils are difficult to buy even at prevailing high prices.

This unprecedented rise is due to a world-wide deficiency in the supplies of natural fats and oils. It is generally agreed in the market that prices will continue to sky-rocket in the immediate future.

Your answer to this problem is the application of INDUSOIL (Pine Fatty Acid) either alone or blended with some of the more expensive oils and fats. INDUSOIL is available for immediate shipment from our plant at Covington, Virginia, at the following prices: Tank Car-5c per pound; Carload, in drums-5½c per pound; L C L-6c per pound.

TENTATIVE SPECIFICATIONS

Specific Gravity 60°/60° F.	0.96-0.98
Pour Point	47° F.-52° F.
Viscosity (Saybolt)	
@ 100° F.	700-900 Sec.
@ 210° F.	70-80 Sec.
Flash Point	350-380° F.
Fire Point	410-430° F.
Sediment	None
Moisture	Practically None
Ash	Practically None
Completely Soluble in Petroleum Ether	150-170
Acid No.	150-170
Saponification Value	G-1
Color (Rosin Scale)	43-47
Fatty Acid	38-42
Rosin Acids	13%-17
Sterols	

For further information communicate with

INDUSTRIAL CHEMICAL SALES

DIVISION WEST VIRGINIA PULP AND PAPER COMPANY

230 PARK AVE., NEW YORK • 205 W. WACKER DRIVE., CHICAGO • 418 SCHOFIELD BLDG., CLEVELAND

Soap Output Rose 20% in 1935

Production of American Industry Valued at $239,152,130, Compared With $200,127,929 in 1933, According to Census Report.

ACCORDING to statistics just released by the U. S. Bureau of the Census, the total value of American soap production in 1935 amounted to $239,152,130 as against $200,127,929 in 1933, the last preceding census year. As constituted for census purposes, the soap industry consists in the manufacture, as primary products, of soap in bar, cake, granulated, powdered, and liquid form, and of cleansers, scouring powders, and washing compounds containing soap made in the same factories.

Toilet soap production in 1935 amounted to 362,901,569 pounds, substantially higher than the 1931 production and moderately higher than the 1929 total. No comparable figures for 1933 are available. Considerably less white laundry soap was produced in 1935 than in 1931 and 1929, but the production of yellow laundry soap has increased progressively during the 6-year period.

The soap industry employed 13,911 wage earners in 1935, comparing with 14,304 in 1933. Since several establishments have shifted their major production from soap to some other field, and since each establishment is classified as a whole in one industry or another on the basis of its product or products of chief value, there has been some reclassification. This makes it impossible to compare the figures given above very accurately.

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TABLE 1.—PRODUCTS, BY KIND, QUANTITY, AND VALUE: 1935, 1931, AND 1929

(No comparable figures for 1933 are available; and owing to an extensive revision of the schedule used at the 1935 Census, no comparable figures for certain items can be given for any earlier year.)

		lbs.	
Bar soap:			
Toilet soap:	1935	362,901,569	53,008,916
	1931	305,638,280	53,064,155
	1929	324,383,543	59,982,997
Laundry soap:			
White:	1935	420,519,270	19,937,259
	1931	787,731,756	33,282,684
	1929	914,588,831	51,175,255
Yellow:			
	1935	713,132,431	31,382,849
	1931	643,372,418	35,102,433
	1929	550,593,948	40,774,488
Granulated, powdered, and sprayed soap:			
	1935	502,122,591	45,206,462
	1931	421,803,780	40,976,787
	1929	337,291,356	35,724,861
Bar cleansers containing soap, 1935		7,003,152	424,372
Soap chips and flakes:			
Packaged, 1935		307,274,876	25,615,958
Bulk, 1935		151,659,892	10,713,357
Washing powders:			
Packaged, 1935		132,681,612	5,535,464
Bulk, 1935		81,881,760	2,115,862
Cleansers and scouring powders containing soap:			
Packaged, 1935		186,494,781	5,844,925
Bulk, 1935		19,272,352	617,562
Shaving soap, total value, 1935		———	9,210,700
Stick, powder, and cake, 1935		(1)	2,273,911
Cream (soap base), total value, 1935		———	6,936,789
Quantity reported, 1935		5,529,460	4,736,635
Quantity not reported, 1935		———	2,200,154
Hand pastes or mechanics' pastes, 1935		13,579,676	735,547
Textile soap, including potash and foots soap for textile manufacture, 1935			
Potash soap, other than textile and liquid, 1935		67,521,396	5,176,564
Liquid soap, not including packaged shampoos, 1935		20,523,776	1,466,490
Soap stock or soap base, made for sale:		18,817,893	1,157,608
	1935	3,665,376	270,406
	1931	8,977,784	546,682
	1929	4,106,339	292,323
Soap not reported according to classifications above:			
	1935	———	1,676,708
	1931	———	[2]75,089,381
	1929	———	[2]98,806,951

[1]No data.

[2]Includes values of products of the classes for which separate figures are given for 1935, but for which no comparable figures are available for earlier years. See headnote.

MUNN

NEWPORT
PALEWOOD
ROSIN

LIKE THE SHAPE OF A CIRCLE

NEVER VARIES

MUNN'S THE WORD for uniformity in Pale Wood Rosin. You hear it all along the line . . . from production manager to chemist . . . from one old-timer to another . . . from the veteran soap maker to the apprentice.

Soap manufacturers have learned to trust the Uniformity and Cleanliness of MUNN. They know beyond the shadow of a doubt that when it's MUNN in the mix they can make batch after batch with never a change of formula . . . with never a danger of grit in their finished soap.

Scientific production processes preclude any possibility of change in MUNN . . . preclude any possibility of foreign matter.

GENERAL NAVAL STORES COMPANY, INC.

Address Main Office: 230 Park Avenue, New York City

NEWPORT

Plants: De Quincy, La.; Pensacola, Fla.; Bay Minette, Ala.

Walter H. Deuble Dead

Walter H. Deuble, president of Climalene Co., Canton, Ohio, cleaning compositions and disinfectants, died recently at the age of 71. Mr. Deuble, who organized the company in 1907, headed the concern for the last 30 years.

Propose Fish Oil Tax

A bill has been introduced in the U. S. House of Representatives (H. R. 126) by Representative Bland of Virginia which would impose a tax of three cents per pound on imports of fish oils, whale oil, marine animal oil, and fatty acids of such oils.

Pushes Sale of "A-Plus"

Los Angeles Soap Co., Los Angeles, is stressing the deodorizing qualities of its new "A Plus" health soap in the California market. Wide distribution has been gained through chain stores and super-markets. The soap is of a reddish color and sells at 5 cents.

Turner In Radio City

The local sales office of Joseph Turner & Co., New York, has been moved to 630 Fifth Ave. from 500 Fifth Ave. Charles N. Hollwedel is sales manager of the New York branch.

P & G Leading Radio User

According to figures compiled by *Printers' Ink*, Procter & Gamble Co. was the leading user of radio advertising during 1936, spending a total of three and a half million dollars on this medium over the three large national networks. Total advertising expenditure of P & G, including radio, magazines and farm publications, amounted to over six million dollars. This mark was surpassed only by General Motors Corp. Figures for P & G and the other two largest advertisers in the soap field are as follows:

	General Total	Magazines	Radio	Farm Publications
Procter & Gamble	6,085,897	2,440,167	3,513,423	132,307
Colgate-Palmolive-Peet Co.	2,969,577	1,393,380	1,576,197	.....
Lever Bros.	2,828,419	1,499,705	1,242,222	86,492

W. G. Griesemer, president of Black Flag Co., Baltimore, and first vice-president of the National Association of Insecticide and Disinfectant Manufacturers, died in Chicago, February 2nd, after a brief illness. Mr. Griesemer was widely known throughout the insecticide industry.

Oppose Whale Oil Imports

Farm organization leaders in Washington are understood to be phrasing further strenuous protests against imports of whale oil into the United States. Substantial shipments have already reached the country, with 50,000 tons more reported on the way, and it is feared by domestic fat producers that prices of American fats and oils will be affected. With the tallow market at its highest level in years, there is of course a tendency on the part of users to look about for substitutes. The fact that large tallow consumers have of late been inactive in the tallow market has naturally caused fear in the minds of domestic fat producers as to competition of imported materials. With the present level of tallow prices, it is now economical to import whale oil in spite of the duty of three cents per pound. Farm interests are understood to be in favor of an additional barrier in the form of an excise tax.

Dieterich Promoted by Mennen

F. S. Dieterich, director of advertising and sales promotion for Mennen Co., Newark, has been appointed to the newly created position of merchandising manager.

Expect Increased Soap Sale

Continued improvement in the outlook for the soap industry is anticipated in an article appearing in a recent issue of the *Wall Street Journal, New York*. The article states in part:

"Increased consumption of better grade, higher-priced soaps and decreased use of 'price brands' was the most important development profit-wise in the American soap industry in 1936 and from every indication 1937 promises further sharp improvement along this line.

"Tonnage sales for the year just ended showed a gain of around 3 per cent to 5 per cent over 1935 while dollar sales, due to higher prices for all soaps and to heavier buying of better soaps, showed a much larger percentage gain. In point of physical volume, sales for the calendar year were the best for the industry since 1929 and set new records for a few individual manufacturers. For some companies, the dollar gain probably amounted to around 20 per cent.

"Tight situation in supplies and markets for fats and oils has hurt smaller producers this past year and helped major units. Latter, aided by strong financial conditions and superior purchasing arrangements, as well as by possession of facilities to handle and store large amounts of raw and in-process materials, are able to exercise a degree of inventory control much higher than is possible for the smaller companies.

"Almost all oils and fats used in soap making have been firm to rising during the past six months. Earlier this year, the market had been weakened by unusually large supplies of imported tallow. After it became apparent the drought would result in shortages of domestic animal fat, particularly lard, the foreign tallow was quickly absorbed and the general market strengthened. Prices of all grades of oils, fats and greases are substantially higher than at this time last year.

"Only a part of this sharp rise has been reflected in price of finished soaps. Several small markups have been made, the latest one being an-

P. Q. SILICATE SERVICE *thorough-going*

HAVE YOU a formula problem in your plant? Perhaps its solution hinges on a silicate of soda. If so, consult freely P. Q. Silicate Headquarters at Philadelphia.

When you put P.Q. to work, wheels are put in motion. Our research men have the background of experience in silicated detergents and soaps that began 'way back in the Sixties. A thorough study is made in the plant or in the laboratory as the case requires.

Your selection of P. Q. Silicate of Soda insures dependable quality and delivery, plus a generous advisory service.

Established 1831

PHILADELPHIA QUARTZ CO.

General Offices and Laboratory: 125 S. Third St., Philadelphia, Pa. Chicago Sales Office: Engineering Bldg. Sold in Canada by National Silicates Ltd., Toronto.

P.Q. WORKS
ANDERSON, IND.
BALTIMORE, MD.
CHESTER, PA.
GARDENVILLE, N.Y.
KANSAS CITY, KANS.
RAHWAY, N.J.
ST. LOUIS, MO.
UTICA, ILL.

SILICATES *of* SODA

nounced in December, and others are imminent. Soap prices will be materially higher by the end of 1937 if raw materials continue upward as expert opinion expects.

"During the quarter just ended, soap makers, by working plants to capacity and restricting 'speculative' orders, brought dealers' soap stocks close to normal productions. These outlet inventories had been below normal most of the calendar year. While the fact that stocks are now again near their usual level would seem to indicate that the soap industry faces at least a temporary recession from its currently high output rate, best opinion in the industry is to the contrary.

"One reason is that total tonnage sales are believed likely to continue to gain with the recovery in 1937. More important still, the better grade soaps (which also are the higher priced and longer-profit soaps) appear almost certain to further increase their share of total sales."

♦

Reintroduce Copeland Bill

A new food, drug and cosmetic bill has been introduced into the 75th Congress by Senator Copeland, similar to S-5 which was debated at such great length before the last session. A companion bill (H. R. 300) has been offered in the House which is somewhat different from the previous bill before the House in that it places jurisdiction over advertising in the hands of the Food & Drug Administration.

It was the provision of the previous House Bill, giving advertising jurisdiction to the Federal Trade Commission, that was the principal point of controversy and eventually led to failure of agreement between House and Senate groups. The new House Bill removes this point of difference. It provides, however, that the Federal Trade Commission shall not be deprived of the right to proceed against false advertising when it is in such form as to make it an unfair method of competition.

Under the new bill, S-5, cosmetics are defined as follows:

"The term 'cosmetic' includes all substances and preparations intended for cleansing, or altering the appearance of, or promoting the attractiveness of, the person, except that such term shall not include soaps represented for cleansing purposes only."

The corresponding definition in H. R. 300 is:

"The term 'cosmetic' includes all substances and preparations intended for cleansing, or altering the appearance of, or promoting the attractiveness of, the person; except that such term shall include soaps only when medicinal or curative qualities are claimed therefor."

The soap industry is understood to be not fully satisfied with the above definitions, and desirous of a rewording which would specifically exempt all ordinary household and laundry soaps. Open hearings are expected on both bills shortly, at which representatives of the soap industry will be present to state their case.

♦

Demonstrate Shampoo Granules

A demonstration of the ready solubility of "Castile Shampoo Granules", a new product of Kranich Soap Co., Brooklyn, is described in a recent issue of *Beauty Shop News*. A one-pound bag of the shampoo granules was poured into a one-gallon glass jug and the jug then filled with hot water. After shaking for a few minutes, a uniform and heavy shampoo, ready for use, was obtained. This new and convenient form of castile soap shampoo was developed by Kranich after two years of experimentation.

♦

New Kirkman Ad Campaign

The new advertising campaign behind "Kirkman" soaps features the phrase "Living on Easy Street" through use of Kirkman soap. The campaign is being handled by N. W. Ayer & Son.

♦

New Fels Radio Program

Starting Jan. 19th, Fels & Co., Philadelphia, are sponsoring a radio program over 17 CBS stations for Fels-Naphtha soap, under the direction of Young & Rubicam.

Oppose Toilet Soap Tax

A bill proposing repeal of the 5 per cent excise tax on toilet soap and toilet preparations has been introduced in the U. S. House of Representatives (H. R. 1957) by Representative Mary Norton. In support of the bill, the office of the Association of American Soap & Glycerine Producers plans to collect data on the amounts paid by the industry under this tax during 1936.

In this connection a questionnaire is being prepared to go to all toilet soap makers to ask for information as to the pounds of toilet soap on which they paid this tax in 1936, the amount paid, how much of it was on bar soap, how much on bar soaps that now retail at the equivalent of 2 cents an ounce or less, how much on bar soaps that now retail at the equivalent of 1¼ cents an ounce or less, how much on liquid soaps, how much on hand pastes, how much on hand powders, and how much on shampoos containing saponaceous materials. *All toilet soap makers are requested to prepare exact figures along these lines on* 1936 *sales*, in order that they may report them *very promptly* when the form is ready. The forms will be numbered for individual manufacturers, so that *no* individual company's figures will become known but only the industry totals.

The association office is anxious to obtain from manufacturers of liquid soaps, hand pastes, hand powders and shampoos, suggestions as to proper dividing lines for their groups comparable to those listed above for bar soaps. Suggestions along this line should be forwarded to Roscoe C. Edlund, secretary of the association, at once, so that they may be taken into consideration in phrasing the questionnaire.

♦

Wants Soap Agency

A concern in Melilla, Spanish Morocco, is interested in securing an agency for sale of American bar laundry soap. Further particulars may be obtained by addressing the U. S. Bureau of Foreign & Domestic Commerce, Washington, D. C., and mentioning number 2196.

BEFORE THEY RAISE THEIR UGLY HEADS

Banish BAD ODORS

with

NEUTROLEUM

BAD odors are your enemies! They frighten away prospective buyers and kill repeat orders. Why not take the lead and banish **them** before they banish **your** hopes of building volume sales? By applying the odor-destroying properties of NEUTROLEUM in the beginning you can do this easily and at little cost . . . and send your product off to a flying start with a pleasant fragrance!

NEUTROLEUM is a result of long and intensive research. It was created to provide the simplest, most effective and least expensive means of overpowering completely and permanently those unpleasant odors which characterize so many useful, every-day products. It works equally well in fly sprays and insecticides, waxes, polishes, naphthalene cleansers, para blocks, solvents, diluents, and many others. As a manufacturer of any one of these, you should try it; the results will amaze you.

If you prefer, send us an untreated sample of your product with a letter explaining your problem. We, in turn, will treat it with NEUTROLEUM and return it to you completely deodorized and with detailed recommendations for your future guidance. This service will be provided gratis to demonstrate how effectually NEUTROLEUM accomplishes its prescribed purpose. Why not take advantage of this offer . . . TODAY?

"Fragrance Creates Sales Appeal"

FRITZSCHE *Brothers, inc.*

816 WEST 8TH STREET LOS ANGELES, CAL.
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77 79 Jarvis St., Toronto, Canada

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118 WEST OHIO ST. CHICAGO, ILL.

A *Fritzsche* PRODUCT for EVERY PURPOSE . . .

- **ESSENTIAL OILS**

  These basic materials are, as they should be, the finest that modern methods and scientific skill can produce—oils of the very highest purity and dependability.

- **AROMATIC CHEMICALS**

  Each item in this group represents a degree of purity and quality that assures finer aromatic effects **plus** the advantage of material economy.

- **FIXATIVES**

  We urge manufacturers to consult us in the selection of their fixatives. With many to choose from, there is always that one which will produce better results in a given case. Let us assist you in your choice.

- **BATH SALT PERFUMES**

  Combining perfume and color, our delightful Bath Perstels greatly simplify and facilitate the process of manufacture. Very economical. Send for details and complete list of blends.

- **DENTAL AND ORAL FLAVORS**

  The flavors in this group are of a special character, carefully blended to impart pleasant, clean, refreshing taste effects. Consult us for these or for the creation of exclusive flavor blends.

- **DEODORIZING COMPOUNDS**

  See our advertisement on page opposite. In addition to Neutroleum we offer a variety of other preparations for use in technical products. Let us assist you in making the proper selection.

- **INSECTICIDES AND DISINFECTANTS**

  Our Research Division has devoted much time to this phase of perfuming. All materials offered by us under this heading embody the latest scientific findings.

- **TOILET SOAP COMPOUNDS**

  A large group of perfumes especially prepared to meet the exacting requirements of soap manufacture. Exquisite scents at minimum cost. Send for particulars.

- **LIQUID SOAP AND SHAMPOO PERFUMES**

  These perfumes are highly soluble and mix readily with liquid soaps. Quantity required governed by cost limits and strength of odor desired.

- **SOAP COLORS**

  We can supply soap colors to produce any desired tint. For specific recommendations, send us description or sample of color to be matched.

- **ANTI-OXIDANTS**

  Highly important to the soap manufacturer are our newly developed preservatives for soaps, animal and vegetable fats and oils. Write us for full particulars.

SEND FOR SAMPLES

Viscount Leverhulme Marries

The wedding of Viscount Leverhulme, governor of Lever Bros., Ltd., the great British soap firm, and director of Unilever, Ltd., took place at St. Ethelburga's Church, London, on January 20. Viscount Leverhulme married Mrs. Winifred Agnes Lee Morris, of Bidston, Cheshire. Viscount and Viscountess Leverhulme left on a honeymoon cruise and will not return to Britain for some time.

Arkansas Soap Tax

A bill recently introduced into the Arkansas State Legislature, to be known as the Luxury Tax Act of 1937, proposes to include a tax of 4 per cent on the wholesale price of all soap selling wholesale for more than 10 cents a bar or package. The wholesaler would collect the tax from the buyer and forward monthly payments to the state.

George S. Robins Dies

George S. Robins, president of G. S. Robins & Co., chemical distributors, St. Louis, died at his home recently following a cerebral hemorrhage. He was 44 years of age. Mr. Robins, established G. S. Robins & Co. in 1913 following his graduation from Rutgers University.

New Cosmetic Course

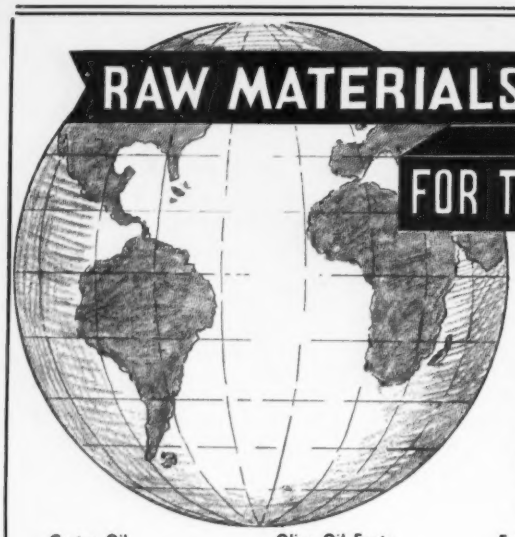
Starting February 13th, the College of Pharmacy of Wayne University, Detroit, will offer a course in cosmetic manufacture under the direction of Maison G. de Navarre. The course will be the first of its kind in the middle west. It is open to all, regardless of past training.

St. Louis Firm Moves

Aalco Rug & Upholstery Cleaners, formerly located at 4125 Olive St., St. Louis, have moved to 3432 Lindell St.

New Canadian Soap Firm

Reuter Products, Ltd., St. Boniface, Manitoba, has been organized to manufacture laundry soap, liquid soap, and a line of cosmetics.



RAW MATERIALS
FOR THE SOAP INDUSTRY
FROM ALL PARTS OF THE WORLD

OILS FATS
CHEMICALS
FATTY ACIDS

YOU cannot control the weather but you can control the standard of your raw materials by buying from a house which has supplied the best to the trade for nearly a century. Having supplied the Soap and Cosmetic industry from its infancy, we solicit orders for your requirements of tested and reliable raw material.

Castor Oil	Olive Oil Foots	Fatty Acids	Tallow	Modified Soda
Cocoanut Oil	Peanut Oil	Lard Oils	Grease	Silicate Soda
Corn Oil	Perilla Oil	Neatsfoot Oil	Lanolin	Metasilicate
Cottonseed Oil	Rapeseed Oil	Oleo Stearine	Caustic Soda	Tri Sodium Phosphate
Palm Oil	Sesame Oil	Stearic Acid	Soda Ash	Di Sodium Phosphate
Palm Kernel Oil	Soya Bean Oil	White Olein	Caustic Potash	Chlorphyll
Olive Oil	Teaseed Oil		Carbonate Potash	"CEREPS" Superfatting Agent
			Sal Soda	

WELCH, HOLME & CLARK CO., Inc.

563 GREENWICH STREET, NEW YORK CITY

ESTABLISHED 1838

TECHNICAL EXECUTIVE WANTED

for Soap Research and Development

who can immediately command

$15,000 A YEAR SALARY

A LARGE progressive eastern soap manufacturer, operating on a national scale, offers a most unusual opportunity for an experienced technical expert with a successful record in soap research and development work.

He must have a full educational background in chemistry and chemical engineering, and have such broad practical experience as will enable him to handle the full range of research and technical manufacturing problems relating to soap, including improvements in present products and development of new products.

Must be creative and practical and able to secure results through his own thorough understanding of problems in this field, his facility for cooperating with his associates, and his ability to inspire and direct his subordinates.

While he must be old enough to have had the required broad experience, he must be young enough to work with the present highly efficient and progressive technical organization.

No personal interviews will be accorded until a written application has been received with full information covering education, experience, present and past positions, age and nationality.

Applications will be treated in strictest confidence, and no inquiries or investigations will be made until the applicant has been given an interview and his permission obtained.

The man securing this position will immediately receive a salary of $15,000 per year and has a most excellent opportunity for advancement in responsibility and salary.

Address Box 898 Soap Magazine.

Contracts Awarded

Liquid Soap Award

Peebles Chemical Co., Rosslyn, Va., has just been awarded a contract for 20,000 gallons soap at 19.2c for the Procurement Division of the U. S. Treasury Dept.

T. S. P. Award

A contract covering 143,650 lbs. trisodium phosphate for the Procurement Division of the U. S. Treasury Dept. has just been awarded to H. H. Rosenthal Co., New York, at a price of 2.03c.

Laundry Soap Award

Armour & Co., Chicago, have just been awarded a contract covering 16,320 lbs. laundry soap for the U. S. Treasury Dept. at a price of 2.69c.

Floor Wax Award

Crystal Soap & Chemical Co., Philadelphia, has been awarded a contract covering 350 gallons liquid floor wax for the U. S. Treasury Department, at a price of 37.4c.

Soap Award

Conray Products Co., New York, has been awarded a contract covering 11,376 cakes soap at 2.73c for the U. S. Treasury Department.

Disinfectant Bids

Murphy Products Co., Washington, and Crystal Soap & Chemical Co., Philadelphia, tied as low bidders recently in a bidding opened by the U. S. Treasury Procurement Division on 180 gallons disinfectants. The low price was $1.04.

Laundry Soap Bid

Armour & Co., Chicago, were the only bidders in a recent bidding on 12,240 lbs. powdered laundry soap opened by the Procurement Division of the U. S. Treasury Dept. of Washington, D. C. Their price was 9.95c.

Toilet Soap Bid

Iowa Soap Co., Burlington, Iowa, was the low bidder, with a price of 9.87c on 13,000 lbs. toilet soap at a recent bidding opened by the U. S. Treasury Department, Procurement Division, at Washington, D. C. Other bidders were Armour & Co. and Colgate-Palmolive-Peet Co.

Petrolatum Bids

Crystal Soap & Chemical Co., Philadelphia, was low bidder at a recent bidding opened by the Procurement Division of the Treasury Dept. on 200 containers petrolatum, with a price of 19c.

Shaving Soap Bids

Crystal Soap & Chemical Co., Philadelphia, tied with N. Brittingham & Sons, Philadelphia, as low bidder in a recent bidding on 500 packages shaving soap opened by the U. S. Treasury Dept., Procurement Division. The low bid was 20.4c.

Laundry Soap Award

An award for 400,020 lbs. laundry soap for the Chicago U. S. Army Quartermaster was divided recently between Colgate-Palmolive-Peet Co., Jersey City, and Samuel M. Sher Co., Chicago Heights. Colgate received a contract covering 199,980 lbs. at 3.87c, and Sher received a contract for 200,040 lbs. at 3.75c.

Soft Soap Awards

R. M. Hollingshead Corp., Camden, has just been awarded contracts covering 7,500 jars soft soap at 13.4c and 750 pails soft soap at $2.175 for the Brooklyn Medical Officer.

Caustic Soap Bids

B. T. Babbitt, New York, was low bidder, with a price of $162.15, at a recent bidding opened by the Schenectady U. S. Army Quartermaster for 4,700 lbs. caustic soda.

Stove Polish Awards

J. L. Prescott Co., Passaic, has just been awarded a contract covering 50,000 cakes stove polish at 3½c for the Jeffersonville Quartermaster. Joseph Dixon Crucible Co., Jersey City, was also awarded contracts for stove polish by the Jeffersonville Quartermaster, one covering 1,600 cakes at 3.8c, f.o.b. East Columbus, Ohio, and another covering 1,200 cakes at 3.8c, f.o.b. Jeffersonville.

Jeffersonville Soda Awards

Several contracts for caustic soda were recently awarded to Pennsylvania Salt Mfg. Co., Philadelphia, by the Jeffersonville Quartermaster. One covered 123,076 cans at 4.6875c, another covered 2,300 cans lye at 4.79c, f.o.b. East Columbus, Ohio, and the third covered 5,000 cans at 4.79c, f.o.b. Jeffersonville.

Laundry Soap Award

John T. Stanley Co., New York, was recently awarded a contract covering 600,000 lbs. laundry soap at 3.64c for the Brooklyn Quartermaster.

Grit Soap Award

Day & Frick, Philadelphia, have recently been awarded a contract for 48,750 lbs. grit soap at 3.3c for the Brooklyn Quartermaster.

Brooklyn Soap Award

Sterling Supply Corp., Philadelphia, has just been awarded a contract by the Brooklyn Quartermaster for 200 lbs. wet soap at 9.5c.

Toilet Soap Bids

Alpha Chemical Co., Baltimore, was low bidder recently in a bidding on 12,150 gallons liquid toilet soap opened by the Procurement Division of the U. S. Treasury Dept. at Washington, D. C. The low price was 26c.

Laundry Soap Bids

Colgate-Palmolive-Peet Co., Jersey City, with a bid of 4.083c, was low bidder at a recent bidding on 126,000 lbs. laundry soap opened by the U. S. Treasury Dept., Procurement Division.

Jobbers at New Address

Z. E. Buzzell Co., jobber of soaps, is now located at 1609-A No. 28th St., Milwaukee, having moved recently from 1436-A No. 29th St.

New!

ISCO

REFINED WAXES

CARNAUBA . . .

. . . CANDELILLA

IN *Flake* FORM

Carnauba—Used in the manufacture of auto and floor polishes • and for all water and oil soluble polishes • Melting point 183/184½° F.

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Candelilla—Freed, as far as physically and mechanically possible, from impurities—gums, rosins and dirt • Does not tend to darken at high temperatures • Melting point approximately 160° F. • Free from "drag" • Recommended as substitute for Carnauba—up to 15 to 35%—in polishes.

•

Isco Beeswax — Pure White, — Sun Bleached—Yellow Refined.

•

Ceresine Wax — Domestic White — Orange—Yellow.

•

Ozokerite —Imported White—Yellow—Hard Green—All melting points.

•

Caustic Potash — 88/92% Flake — Solid—Granular—Liquid In various packages.

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Samples and quotations gladly furnished

INNIS, SPEIDEN & CO.

Manufacturers and Importers

117 Liberty Street New York

BOSTON • PHILADELPHIA • CLEVELAND • CHICAGO

GLOVERSVILLE, N. Y.

FACTORIES: Jersey City, N. J., Niagara Falls, N. Y.

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RAW MATERIALS

for the soap and allied industries

ALCOHOL
AMMONIA
BLEACHING POWDER
BORAX
BICARBONATE OF SODA
CALCIUM CHLORIDE
CARBON TETRACHLORIDE
CAUSTIC SODA
CAUSTIC POTASH
DYES
DISODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILCATE
OXALIC ACID
POTASSIUM CARBONATE
SAL AMMONIAC
SALT
SAL SODA
SILICATE OF SODA
SODA ASH
TRISODIUM PHOSPHATE
CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID-RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
FATTY ACIDS
STEARINE
STEARIC ACID
GREASE
TALLOW

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MEMBERS NEW YORK PRODUCE EXCHANGE

GLISYN

Inquiries solicited on this low price glycerine replacement.

Every raw material necessary for the manufacture of soap and allied products is carried in stock, and available at the right price for immediate delivery to your door.

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CAUSTIC SODA
CAUSTIC POTASH
liquid . . flake . . solid

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OLIVE OIL FOOTS

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OLIVE OIL • TALLOW

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COCOANUT OIL

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All Packages
Drums—Tank Cars
Tank Wagons

EASTERN INDUSTRIES, INC.

Ridgefield, New Jersey

Telephone MOrsemere 6-5630

New Trade Marks

The following trade-marks were published in the January issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

NAPTOL—This on oval reverse plate describing household cleanser. Filed by Chempro, New York, July 29, 1936. Claims use since July 1, 1936.

OLD SPICE—This in solid letters describing soap flakes, laundry soaps, toilet soaps, and shave preparations. Filed by Shulton, Inc., New York, Sept. 19, 1936. Claims use since Aug. 26, 1936.

USA-FOAM — This in heavy solid letters, describing soap. Filed by B. & L. Laboratories, Chicago, Sept. 30, 1936. Claims use since June, 25, 1936.

HALLMARK—This in solid letters describing silver polish. Filed by Hallmark Co., New York, Oct. 23, 1936. Claims use since June, 1915.

TAT—This in heavy solid letters describing liquid glass cleaner. Filed by Glass-Glow Co., Indianapolis, Oct. 26, 1936. Claims use since Sept. 7, 1936.

DEB—This in fancy lower case letters describing silver polish. Filed by Western Products Co., Fargo, N. Dakota, Oct. 26, 1936. Claims use since Sept. 1, 1936.

PIROKILL—This in solid letters describing insecticides. Filed by Alfredo Cordero, New York. Sept. 3, 1936. Claims use since 1925.

GUMFRIS—This in heavy solid letters describing tooth paste. Filed by Dentos Dentrifice Co., Chicago, Oct. 7, 1936. Claims use since Sept. 23, 1936.

GULF—This in heavy block letters on circle, in orange and blue, describing furniture polish and auto wax. Filed by Gulf Oil Corp., Pittsburgh, Oct. 30, 1936. Claims use since May, 1925.

KEMITROL—This in solid letters describing laundry compound. Filed by National Milling & Chemical Co., Philadelphia, Oct. 28, 1936. Claims use since Oct., 1935.

SODOSIL—This in solid letters, with "O" larger than the rest, describing detergents. Filed by General Chemical Co., New York, Oct. 30, 1936. Claims use since Sept. 24, 1936.

COSMIC RAY—This in solid letters describing toilet soap. Filed by Los Angeles Soap Co., Los Angeles, Nov. 2, 1936. Claims use since Oct. 12, 1936.

MIDWAY—This in solid lower case letters describing insecticides and various chemical products. Filed by Midway Chemical Co., Chicago, Jan. 20, 1936. Claims use since March 27, 1926.

GULF—This in heavy block letters, on circle, in orange and blue, describing insecticides, and insect repellents. Filed by Gulf Oil Corp., Pittsburgh, Oct. 30, 1936. Claims use since July, 1925.

RILLENE—This in solid letters describing shampoo. Filed by Rilling-Arnao Co., Minneapolis, Nov. 2, 1936. Claims use since Sept. 18, 1936.

BOR-A-QUIN—This in solid letters describing antiseptic powder. Filed by Warren-Teed Products Co., Columbus, Nov. 2, 1936. Claims use since March 29, 1934.

LACQUER-TONE—This in solid letters describing automobile polish. Filed by Union Oil Co., of California, Los Angeles, May 25, 1935. Claims use since July, 1934.

POKADOT—This in solid letters with blue circle above "A," describing furniture polish and cleaner. Filed by Pokadot Chemical Co., Greenville, Pa., Nov. 6, 1936. Claims use since March 21, 1936.

LACQUER-TONE—This in solid lower case letters describing liquid cleaner for lacquered and enameled surfaces, etc. Filed by Union Oil Co., of Calif., May 25, 1935. Claims use since July, 1934.

MIKROKLENE — This in solid letters describing hand cleaner. Filed by Economics Laboratory, St. Paul, Dec. 16, 1935. Claims use since May 1, 1935.

SUPER-X—This in fancy solid letters above sketch of globe with heavy solid letter "X" across it, describing general household and industrial cleanser. Filed by Super-X Cleanser Co., Berwyn, Ill., Oct. 26, 1936. Claims use since May 1, 1936.

PADOLA—This in solid lower case letters describing soaps and shaving creams. Filed by Padola Corp., New York, Oct. 27, 1936. Claims use since April, 1936.

WINTERSOPE — This in solid script, with sketches of snowflakes, describing toilet soap. Filed by Syndicate-Alliance Trading Co., New York, Oct. 28, 1936. Claims use since Sept. 30, 1936.

WHOPPER—This in solid letters describing laundry soap. Filed by National Retailer-Owned Grocers, Chicago, Nov. 14, 1936. Claims use since Oct. 13, 1936.

VELVET—This in fancy lined letters over large outline letter "V" describing wall paper cleaner. Filed by Cleveland Cleaner and Paste Co., Cleveland, Nov. 16, 1936. Claims use since Oct. 12, 1936.

CEDERIT—This in outline letters describing wall coating preparation for moth control. Filed by Cederit Co., San Francisco, March 30, 1936. Claims use since Feb. 17, 1936.

SOLVOID—This in solid letters describing water softener. Filed by American Marine Paint Co., San Francisco, May 11, 1936. Claims use since June, 1935.

SOLVOID—This in solid letters across a disc sketched over a rectangle, describing water softener. Filed by American Marine Paint Co., San Francisco, May 11, 1936. Claims use since June, 1935.

MIDWAY—This in solid lower case letters, describing polishes. Filed by Midway Chemical Co., Chicago, July 20, 1936. Claims use since Oct. 13, 1926.

Trade Marks Granted

341,917. Washing Fluid. White Wave Washing Fluid Co., Chicago. Filed November 23, 1935.

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Coconut Oil Shampoos
Olive Oil Shampoo

KRANICH SOAP COMPANY
56 Richards Street
Brooklyn, N. Y.

Serial No. 371,936. Published October 20, 1936. Class 4.

341,929. Liquid Polish for White Leather. Sno-Flake Products Co., Detroit. Filed June 26, 1936. Serial No. 380,314. Published October 13, 1936. Class 4.

341,945. Powdered Cleanser. Grand Union Tea Co., New York. Filed September 16, 1935. Serial No. 369,358. Published October 20, 1936. Class 4.

341,971. Dental Cream. Colgate-Palmolive-Peet Co., Jersey City. Filed August 12, 1936. Serial No. 382,090. Published October 20, 1936. Class 6.

341,984. General Household Cleaning Preparation. No-Trik Co., West Allis, Wis. Filed August 15, 1936. Serial No. 382,201. Published October 20, 1936. Class 4.

341,993. Automobile Body Polish. Goodyear Tire & Rubber Co., Akron. Filed August 26, 1936. Serial No. 382,592. Published October 20, 1936. Class 16.

341,994. Shampoo. Huntington Laboratories, Inc., Huntington, Ind. Filed August 26, 1936. Serial No. 382,594. Published October 20, 1936. Class 6.

341,996. Moth Preventatives. Standard Naphthalene Products Corp., Kearny, N. J. Filed August 26, 1936. Serial No. 382,607. Published October 20, 1936. Class 6.

342,014. Liquid Mothproofing Compound. Moth-O-Rize Co., Chicago. Filed August 14, 1936. Serial No. 382,161. Published October 13, 1936. Class 6.

342,023. Washing Powder. Riddiford Bros., Inc., Chicago. Filed July 30, 1936. Serial No. 381,639. Published October 13, 1936. Class 4.

342,026. Flea and Lice Powder. Stewart and Co., Los Angeles. Filed August 1, 1936. Serial No. 381,728. Published October 20, 1936. Class 6.

342,051. Wall Paper Cleaner. Kutol Products Co., Cincinnati. Filed July 3, 1936. Serial No. 380,573. Published October 20, 1936. Class 4.

342,213. Tooth Paste and Mouth Wash. Guy C. Buxton, Chicago. Filed June 27, 1934. Serial No. 353,208. Published September 18, 1934. Class 6.

342,217. Cleaning Powder. Atlas Chem. Products Co., Jersey City. Filed July 30, 1935. Serial No. 367,843. Published October 8, 1935. Class 4.

342,235. Powder and Liquid Metal Polishes. V. H. Greffoz, Houston. Filed April 1, 1936. Serial No. 376,673. Published October 27, 1936. Class 4.

342,241. Shaving Creams and Powders. Bectin-Seymour, New York. Filed May 20, 1936. Serial No. 378,643. Published October 27, 1936. Class 4.

342,247. Cleaning Compound for Automobiles, Furniture, Floors, etc. Jack D. Nicholas, St. Joseph, Mo. Filed June 22, 1936. Serial No. 379,992. Published October 27, 1936. Class 4.

342,253. Liquid Cleanser. Frank George Bolte, Jr., Audubon, N. J. Filed July 2, 1936. Serial No. 380,495. Published October 27, 1936. Class 4.

342,279. Cleansing Powder. Bon Ami Co., New York. Filed July 27, 1936. Serial No. 381,475. Published October 27, 1936. Class 4.

342,281. Soap. Voorhis-Tiebout Co., Rhineback, N. Y. Filed July 29, 1936. Serial No. 381,593. Published October 27, 1936. Class 4.

342,345. Tooth Powder and Mouth Wash. Denti-Set Corp., Wilmington. Filed September 4, 1936. Serial No. 382,907. Published October 27, 1936. Class 6.

342,429. Insecticides and Fungicides. General Chemical Co., New York. Filed June 25, 1936. Serial No. 380,198. Published November 3, 1936. Class 6.

342,484. Insecticide. H. Clay Glover Co., New York. Filed August 12, 1936. Serial No. 382,092. Published November 3, 1936. Class 6.

342,489. Dry Cleaning Soap. R. R. Street & Co., Chicago. Filed June 1, 1936. Serial No. 379,150. Published November 10, 1936. Class 4.

342,514. Soap. Mennen Co., Newark, N. J. Filed April 14, 1936. Serial No. 377,189. Published November 3, 1936. Class 4.

342,527. Antiseptic Gargle and Mouth Wash. O. Gargle Co., Tulsa. Filed August 20, 1936. Serial No. 382,392. Published November 3, 1936. Class 6.

342,529. Liquid Cleaner. Glass-Glow Co., Indianapolis. Filed August 14, 1936. Serial No. 382,150. Published November 3, 1936. Class 4.

342,550. Toilet Soaps. Robert Enterprises, Inc., New York. Filed October 26, 1935. Serial No. 370,839. Published December 17, 1935. Class 4.

342,571. Shaving Cream. Proctors Products Co., New Haven. Filed September 29, 1936. Serial No. 383,782. Published November 10, 1936. Class 4.

342,582. Insect Proofing Paint. Newton P. Easling, Pekin, Ill. Filed September 10, 1936. Serial No. 383,089. Published November 10, 1936. Class 16.

342,589. Mouth Wash, Gargle, etc. Grand Union Tea Co., New York. Filed September 8, 1936. Serial No. 383,013. Published November 3, 1936. Class 6.

342,597. Soap. John T. Stanley Co., New York. Filed August 25, 1936. Serial No. 382,575. Published November 3, 1936. Class 4.

342,604. Fungicide. Nichols Copper Co., New York. Filed September 12, 1936. Serial No. 383,177. Published November 3, 1936. Class 6.

342,605. Shaving Cream. Master Shaving Cream Co., Minneapolis. Filed September 12, 1936. Serial No. 383,158. Published November 3, 1936. Class 4.

340,814. Soap. Dacar Products Co., Canton, O. Filed August 11, 1934. Serial No. 354,894. Published September 15, 1936. Class 4.

340,851. Cleaning Preparation for Hats. Lafayette Products Co., Brooklyn. Filed March 4, 1936. Serial No. 375,550. Published September 15, 1936. Class 4.

340,890. Brushless Shaving Cream in Stick Form. Louangel Corp., New York. Filed June 20, 1936. Serial No. 380,011. Published September 15, 1936. Class 4.

340,899. Toilet Soap. Medical Soap Co., New Orleans. Filed April 13, 1936. Serial No. 377,158. Published July 28, 1936. Class 4.

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Sales Offices and Warehouses in Principal Cities

Raw Material Markets

(As of January 26, 1937)

NEW YORK—The market for soap raw materials this period was characterized, on the whole, by continued price advances and no relief from the scarcity of supplies. Toward closing, there were fewer advances in the oil and fat market, but, nevertheless, the market retained the firm tone which has prevailed in recent months. The outstanding feature behind this solidity was the scarcity of supplies in primary centers abroad. There was not a great deal of purchasing activity, chiefly as a result of holding off to await further developments. As a result of lessening interest and a sudden drop in copra prices, coconut oil has just dropped to 8-3/4c a pound. Palm oil is becoming increasingly stronger, however, with the market now mostly nominal. Tallow trading is slackening somewhat, and a drop of ¼c a pound on city extra has just been reported.

The rosin market has weakened moderately, with buying slackening, export inquiry dropping considerably, and prices irregular. Nevertheless, it is believed that the undertone is still firm.

In essential oils, there was still a great deal of strength, founded, for the most part, on high replacement costs and the difficulty of securing material for shipment in normal quantities.

OILS AND FATS

Coconut Oil

After reaching a new all-time high early this period, copra recently encountered a sharp setback in the London market. Coconut oil registered the drop, now being quoted at 8¾c tanks, Pacific Coast. Copra stocks in the Philippines were said to be about 40 per cent lower in December, 1936, than they were in December, 1935. Production of coconut oil in the Philippines was expected to be light for the first quarter of 1937 on account of damages resulting from the typhoon in Southern Luzon in November. Exports of coconut oil from Netherland East India increased during the first nine months of 1936 over the same period of 1935, amounting to 363,000 metric tons as compared with 335,651 metric tons. There has been such a demand for coconut oil abroad that natives are now using peanut oil as a substitute for coconut for domestic purposes.

Palm Oil

With supplies extremely limited, palm oil rose to a stronger position recently, current quotations being around 7⅜c. The market, however, is mostly nominal.

Olive Oil

Quotations on denatured olive oil remained about the same this period as last, but foots made substantial gains. Spot stocks have dwindled further, and future supplies are still uncertain.

Tallow and Grease

In the spot market, tallow has just eased about ¼c, after considerable trading carried on around 9⅜c. Efforts on the part of sellers last week to lift the price over the 9½c mark recently reached were not successful. Interest fell off toward the close of last week, with further developments being awaited. The tallow futures market lost 20 to 65 points last week. Grease has been moving in sympathy with tallow.

PERFUMING MATERIALS

Citronella Oil

Citronella prices registered further sharp advances in both Ceylon and Java grades. At closing, Ceylon oil was being quoted at 46c to 59c, and Java oil at 49c to 54c. The price increases at the sources of supply of these oils were responsible for the continued advances. Sellers maintained an attitude of reserve.

Geranium Oil

While quotations on Bourbon and African geranium oils lingered at the levels they reached several weeks ago, Turkish geranium, or palmarosa oil, advanced, as import costs rose sharply.

Citrous Oils

The anticipated rise in California lemon and orange oils occurred, as a result of freezing weather in the producing regions. Offerings of Italian citrous oils were extremely limited at the source and were made at high prices. Closing quotations on these oils were $3.75 to $4.60 a lb. for lemon oil, and $3.50 to $4.50 for orange oil. Bergamot oil was practically nominal.

Rosemary Oil

Rosemary oil stocks are none too large at present, with quotations advancing to 55c for U. S. P. and 45c a lb. for technical grades.

ROSIN

The rosin market was quieter this period, with purchasing more conservative than usual over recent months. Stocks of rosin in the three principal seaboard markets at the close of the first week in January were about 125,000 barrels below those of last year. There was considerable interest in the anticipated announcement of dates for meetings in connection with the new naval stores conservation program.

GLYCERINE

Glycerine prices jumped considerably this period, C. P. and dynamite grades now being quoted at 25 to 25½c, saponification grade at 23 to 23½c, and soap lye at 21½ to 22c.

Chicago Drug Meeting

Members of the Chicago Drug & Chemical Association, at their Jan. 28th luncheon meeting, heard Robert E. Barclay, head of the research department of Federal Electric Co. talk on "The Air You Breathe." Mr. Barclay has done considerable research on the liberation of ionic energy, rare gases, conductivity, etc.

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BOOKS

Modern Soap Making, by Dr. E. G. Thomssen and C. R. Kemp. The first entirely original American book on soap manufacture in several years. Thoroughly covers every phase of soap manufacture and glycerin recovery. Written by practical soap men....a truly practical book. Chapter headings: Raw Materials; Machinery and Equipment; Soap Making Methods; Soap Products; Glycerin Recovery and Refining; Analytical Methods; Appendix with reference tables, etc. 450 pages. $7.50 per copy in U. S. Add 50 cents for foreign postage.

Modern Cosmetics, by Chilson. 400 pages of practical, usable information for the manufacturer of cosmetics. Formulas and manufacturing instructions for everything in the cosmetic line, $6.00.

Henley's Twentieth Century Book of Recipes, Formulas and Processes. A handy reference book listing 10,000 miscellaneous formulas, including special sections for soaps, polishes, insecticides, etc. 800 pages, $4.00.

The Industrial Chemistry of Fats and Waxes, by Hilditch. A study of the fats and waxes in relation to their use in industry. 450 pages, $7.50.

Hydrogenation of Organic Substances, by Ellis. Latest revised edition of this well-known book, pre-eminent in the field of hydrogenation. 990 pages, $15.00.

Laundry Chemistry, by A. Harvey. A manual on the chemistry of laundry materials and methods. 120 pages, 5 x 7½. $1.75.

Modern Soap Perfumes, by Sedgwick. A practical handbook on the science of soap perfumery, $1.00.

Pyrethrum Flowers, by Gnadinger. A complete compilation of all known facts on pyrethrum; its history, sources, evaluation, chemistry and uses. The problems involved in the manufacture of pyrethrum products are given thorough and lucid exposition. 396 pages, $5.00.

"Soap." Bound volumes for years 1927-28, 1935 and 1936 available at $12.00 each.

Soap Blue Book. A Buyer's Guide, Catalog and Business and Technical Reference Book. 195 pages, $1.00.

Vegetable Fats and Oils, by George S. Jamieson. 444 pages. An American Chemical Society Monograph. Covering classification, occurrence, properties, analytical methods, etc., of vegetable oils, fatty acid and other derivatives; also production and refining methods, $6.50.

Chemistry of Laundry Materials, by D. N. Jackman. A useful book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages, $2.50.

The Chemical Formulary, by H. Bennett. This latest edition carries 5,000 formulae all said to be different from those appearing in the first and second editions. 5½ x 8½. 550 pages. Price, $6.00.

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Raw Material Prices

(As of January 26, 1937)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .11	$ .12½
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, drums	gal.	.73	.75
Low boiling grade	gal.	.78	.80
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls.	gal.	4.14	4.19
Complete Denat., SD 1, drums, ex.	gal.	.32	.37
Alum, Potash lump	lb.	.03¼	.03½
Ammonia Water, 26°, drums, wks.	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bentonite 1	ton	—	16.60
Bentonite 2	ton	—	11.00
Bleaching Powder, drums	100 lb.	2.25	2.60
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
Caustic, see Soda Caustic, Potash Caustic			
L. C. L.	lb.	.07	.08
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.10	.10½
Creosote Oil	gal.	.13	.13½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.05¾	.06¼
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.25	.25½
Dynamite, drums	lb.	.25	.25½
Saponification, drums	lb.	.23	.23½
Soap, lye, drums	lb.	.21½	.22
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.07¼	.07½
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.13¼	.14¼
Pine Oil, bbls.	gal.	.59	.64
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.07¼	.09½
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	9.91	10.51
Grade K to N	bbl.	10.56	10.66
Grade WG and X	bbl.	11.16	13.16
Wood FF Spot	bbl.	—	10.51
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.26	.35
Olive Castile, powder	lb.	.28	.38
Powdered White, Neutral	lb.	.18½	.21½
Olive Oil Foot, bars, 68-70%	lb.	.09	.09½
Green, U. S. P.	lb.	.08	.09½
Tallow Chips, 88%	lb.	.09	.09½
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	1.05
Soda Caustic, cont., wks., solid	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls.	100 lb.	$1.10	$1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls.	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls.	lb.	.19	.20
Sodium Silicate, 40 deg., drum.	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Triethanolamine	lb.	.20	.25
Trisodium Phosphate, bags, bbls.	lb.	.03	.03½
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls.	lb.	.20	.22

Oils — Fats — Greases

Babassu, tanks, futures	lb.	.12¼	.12½
Castor, No. 1, bbls.	lb.	.10¾	.11½
No. 3, bbls.	lb.	.10¼	.11
Coconut			
Manila, tanks, N. Y., futures	lb.	.09¾	—
Tank, Pacific coast	lb.	.08¾	Nom.
Cod, Newfoundland, bbls.	gal.	.51	Nom.
Copra, bulk, coast	lb.	.0585	.0590
Corn tanks, mills	lb.	.10½	.10¾
Cottonseed, crude, tanks, mill	lb.	—	.10¼
PSY, futures	lb.	—	.11½
Degras, Amer., bbls.	lb.	.07¾	.08
English, bbls.	lb.	.07¾	.08
Neutral, bbls.	lb.	.11½	.13
Greases, choice white bbls., fob Chicago	lb.	—	.09¾
Yellow	lb.	.08¾	.09
House	lb.	.08¾	.09
Lard, City	lb.	.13¾	.14
Compound tierces	lb.	.13¾	.14
Lard Oil,			
Extra, bbls.	lb.	—	.13½
Extra, No. 1, bbls.	lb.	—	.12¾
No. 2, bbls.	lb.	—	.12½
Linseed, raw, bbls.	lb.	.1010	.1070
Tanks, raw	lb.	.0950	.0970
Boiled, 5 bbls. lots	lb.	.1090	.1110
Menhaden, Crude, tanks, Balt.	gal.	.37	Nom.
Oiticica Oil	lb.	.11	.11½
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.13¼
No. 2, bbls., N. Y.	lb.	—	.12¾
Olive, denatured, bbls., N. Y.	lb.	1.55	Nom.
Foots, bbls., N. Y.	lb.	.11¼	.11½
Palm	lb.	.07⅞	Nom.
Palm Kernel, casks, denatured	lb.	.0870	Nom.
Peanut, domestic, tanks	lb.	.10¾	Nom.
Rapeseed Oil, denat.	gal.	.85	.90
Red Oil, distilled, bbls.	lb.	.11⅝	.12⅝
Saponified, bbls.	lb.	.11⅝	.12⅝
Tanks	lb.	—	.10¾
Seasame Oil, dms.	lb.	.13¼	Nom.
Soya Bean, domestic tanks, saponified, f.o.b. West	lb.	.10¾	Nom.
Stearic Acid,			
Double pressed	lb.	.12¾	.13¾
Triple pressed, bgs.	lb.	.15½	.16½
Stearine, oleo, bbls.	lb.	.12	.12¼
Sunflower Seed Oil, refd., dms.	lb.	.12½	.12¾
Tallow, special, f.o.b. plant	lb.	—	.09
City, ex. loose, f.o.b. plant	lb.	—	.09⅛
Tallow oils, acidless, tanks, N. Y.	lb.	—	.13¼
Bbls., c/l N. Y.	lb.	—	.12¾
Teaseed Oil	lb.	.14	.15
Whale, refined	lb.	.0850	.0870

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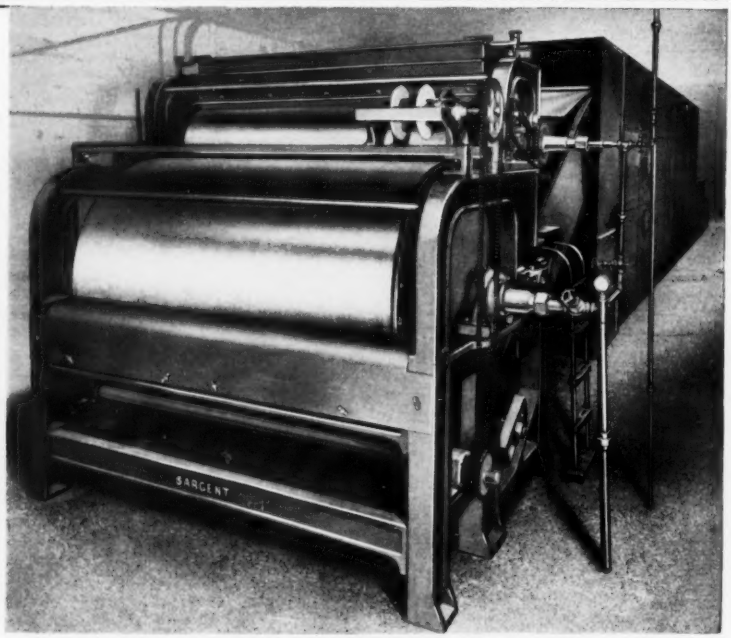

AS the title indicates, the Rolls are NEW and the entire machine is NEW, many valuable improvements having been perfected until this latest Sargent development is now one of the very finest Rolls obtainable.

To the soap manufacturer, the most important angle is to have a *thin, uniform chip* . . . readily accomplished by these new Rolls being expertly machined, ground and set. Finest grade of cast iron. Vari-speed controls on both Rolls insures easy adjustment . . . every part accessible. Drive improvements reduce the horsepower used. Changes made at a minute's notice. The Dryer is entirely re-designed. Its housing gives better insulation and cuts down steam consumption per hour. Other valuable changes have been made in the circulating and exhaust air systems . . . and all *fans* are *direct motor driven.*

C. G. SARGENT'S SONS CORP. GRANITEVILLE MASS., U. S. A.

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.75	$3.00
Bitter, F. F. P. A.	lb.	3.00	3.25
Sweet, cans	lb.	.74	.75
Anise, cans, U. S. P.	lb.	.95	1.00
Bay tins		1.30	1.50
Bergamot, coppers	lb.	3.40	Nom.
Artificial	lb.	1.15	1.40
Birch Tar, rect. tins	lb.	.70	.75
Crude, tins	lb.	.14	.17
Bois de Rose, Brazilian	lb.	1.25	1.35
Cayenne	lb.	2.75	3.00
Cade, cans	lb.	.38	.52
Cajeput, native, tins	lb.	.45	.46
Calamus, tins	lb.	3.50	3.75
Camphor, Sassy, drums	lb.	.16	.17
White, drums	lb.	.18	.19
Cananga, native, tins	lb.	1.75	2.25
Rectified, tins	lb.	3.00	3.35
Caraway Seed	lb.	2.10	2.25
Cassia, Redistilled, U. S. P.	lb.	.90	.95
Cedar Leaf, tins	lb.	1.00	1.05
Cedar Wood, light, drums	lb.	.22	.28
Citronella, Java, drums	lb.	.49	.54
Citronella, Ceylon, drums	lb.	.46	.59
Clove, U. S. P., tins	bl.	1.15	1.20
Eucalyptus, Austl., U. S. P., cans	lb.	.45	.50
Fennel, U. S. P., tins	lb.	1.05	1.10
Geranium, African, cans	lb.	4.85	6.25
Bourbon, tins	lb.	4.75	5.65
Hemlock, tins	lb.	1.05	1.10
Lavender, U. S. P., tins	lb.	2.25	6.00
Spike, Spanish, cans	lb.	1.05	1.10
Lemon, Ital., U. S. P.	lb.	3.75	4.65
Cal.	lb.	3.50	—
Lemongrass, native, cans	lb.	.55	.62
Linaloe, Mex., cases	lb.	1.15	1.20
Nutmeg, U. S. P., tins	lb.	1.10	1.15
Orange, Sweet, W. Ind., tins	lb.	1.95	2.20
Italian cop	lb.	3.50	4.50
Distilled	lb.	—	.90
Cal.	lb.	3.25	—
Origanum, cans, tech	lb.	.90	1.25
Palmarosa	lb.	2.25	2.40
Patchouli	lb.	5.00	6.00
Pennyroyal, dom.	lb.	1.65	1.75
Imported	lb.	1.60	1.85
Peppermint, nat., cans	lb.	2.25	2.50
Redis., U. S. P., cans	lb.	2.50	2.75
Petitgrain, S. A., tins	lb.	1.20	—
Pine Needle, Siberian	lb.	.85	.90
Rose, Natural	oz.	5.25	22.50
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	—	.55
Tech., lb. tins	lb.	—	.45
Sandalwood, E. Ind., U. S. P.	lb.	4.80	5.50
Sassafras, U. S. P.	lb.	.75	1.25
Artificial	lb.	.34½	.35½
Spearmint, U. S. P.	lb.	1.75	2.00
Thyme, red, U. S. P.	lb.	.95	1.25
White, U. S. P.	lb.	1.05	1.35
Vetivert, Bourbon	lb.	8.00	18.00
Ylang Ylang, Bourbon	lb.	3.50	6.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.25	$2.25
Amyl Cinnamic Aldehyde	lb.	1.55	2.00
Anethol	lb.	1.05	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.20	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.00	2.30
Citronellal	lb.	1.25	1.50
Citronellol	lb.	1.90	2.15
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide		.70	1.00
Eucalyptol, U. S. P.	lb.	.60	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	.75	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.00	2.50
Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.25	5.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	1.50	3.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.10	2.75
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	4.20	5.00
Ketone	lb.	4.35	5.25
Xylene	lb.	1.25	2.00
Phenylacetaldehyde	lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.	lb.	2.50	3.25
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.00	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.54	.57
Terpineol, C. P., 1,000 lb. drs.	lb.	.23	.25
Cans	lb.	.27	.30
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.70	1.95
Vanillin, U. S. P.	lb.	3.75	4.00
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect power, bbls.	lb.	.16	.18
Concentrated Extract			
5 to 1	gal.	1.25	1.30
20 to 1	gal.	4.10	4.30
30 to 1	gal.	6.15	6.45
Derris, powder—4%	lb.	.33	.38
Derris, powder—5%	lb.	.39	.44
Cube, powder—4%	lb.	.23	.28
Cube, powder—5%	lb.	.28	.33

Gums

Arabic, Amb. Sts.	lb.	.11	.11½
White, powdered	lb.	.14	.15
Karaya, powdered No. 1	lb.	.09½	.10
Tragacanth, Aleppo, No. 1	lb.	2.40	2.50
Sorts	lb.	.30	.75

Waxes

Bees, white	lb.	.40	.42
African, bgs.	lb.	.28½	.29
Refined, yel.	lb.	.33	.37
Candelilla, bgs.	lb.	.15½	.16½
Carnauba, No. 1	lb.	.47	.48½
No. 2, N. C.	lb.	.39	.40
No. 3, chalky	lb.	.35½	.37
Ceresin, yellow	lb.	.08	.11
Paraffin ref. 125-130	lb.	.0455	.04¾

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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Bleaching Fats With Peroxide

MOST fats and fatty acids, whether liquid or solid and of plant or animal origin, are more or less strongly colored in the crude condition. Users of these products prefer them to be as nearly colorless as possible, so that some sort of bleaching is necessary. One of the more modern bleaching agents is concentrated hydrogen peroxide. Its great advantage lies in the fact that in the bleaching process two perfectly harmless substances are produced, oxygen and water, as a result of the decomposition of the bleaching agent. This makes unnecessary the usual after-treatment of the bleached material to separate residues and decomposition products of the bleaching agent.

Hydrogen peroxide solutions of relatively low concentration have been used for a long time with good results, especially in the textile industry. However, they always failed to work when applied to the bleaching of fats. Only since it has been found possible to prepare hydrogen peroxide in highly concentrated form, has it been successfully used as a bleaching agent in the fat industry. It can be used for treating both plant and animal fats and fatty acids. Good results are obtained in general with peanut oil, sesame oil, rapeseed oil, (especially after separation of impurities), linseed oil, mixed extracted oils, whale oil, fish oils, tallow, animal fat and bone fat. Less favorable are the results with soybean oil, cottonseed oil, palm kernel oil, corn oil and lard. Crude castor oil and crude wool fat are unsuited to bleaching with this agent. Fatty acids are always more readily bleached than the corresponding fats from which they are obtained.

The following precautions should be observed in bleaching fats with 45 per cent hydrogen peroxide. The process must be carried out in apparatus that is impervious to hydrogen peroxide. Most metals are therefore unsuitable. Exceptions are aluminum, tin and vanadium steel, so that these metals can be used for the bleaching vessel. Other materials which can be used for the vessels are earthenware, glass, porcelain, wood, and well-enamelled or glass-coated iron, or tin-coated iron in which the coating is free from flaws.

According to the necessary degree of bleaching, from 0.5 to 2 per cent of 45 per cent hydrogen peroxide is used. With whale oil, many kinds of tallow and fatty acids, an addition of 1 per cent usually suffices. In the interests of economy it is recommended that a preliminary test be made with the material to be bleached, in order to be able to apply the process on a large scale to the greatest advantage. Large-scale work usually gives a better result than the corresponding laboratory test. In many cases it has been found that the estimated amount of hydrogen peroxide can be cut down.

The fat to be bleached should be warmed to 40° or to 60° C. according to its nature. The necessary amount of hydrogen peroxide is then added during continuous stirring with suitable mechanical stirring equipment. The mixture is then allowed to react, with occasional stirring, until the desired bleaching effect is attained. By increasing the temperature to 50-75° C., the process can be considerably accelerated. As a rule it requires only a few hours, but in some cases longer action may be necessary. Many oils, fats and fatty acids show an appreciable after-bleaching in storage.

If the material to be treated contains mechanical impurities, these will accelerate the decomposition of the hydrogen peroxide and thus cause a loss of bleaching power, as well as an increased tendency to foam over. In such cases it is better to purify the oil by settling or filtration, or better yet, to use only filtered oil for bleaching.

With highly colored vegetable or plant oils whose coloring matter is very resistant to hydrogen peroxide, the bleaching process can be speeded up by adding to the oil about 1 per cent of a 70 per cent sulfuric acid solution (d. 1.62). This is mixed in before the hydrogen peroxide is added. In these cases 0.5 per cent of the latter is usually suf-

ficient. Another recent method for increasing the bleaching action of hydrogen peroxide is to stir into the fat a fat-soluble organic liquid. This enables the active oxygen to act more quickly on the dissolved coloring materials. This was successful for the bleaching of highly colored beeswax and sulfur olive oil, where hydrogen peroxide alone would not work. This procedure also accelerates the process, which can be carried out in this manner in an hour.

Still another modification is to add simultaneously 0.5-2 per cent of hydrogen peroxide and the same amount of acetic anhydride. However, these two reagents should not be mixed before the addition is made. Some method for taking care of the strong vapors at the beginning of the reaction, is needed. Any residue of bleaching agents left at the end of the reaction can be washed out with water or with steam. Also the wash water may be made into a solution of caustic soda equivalent to the amount of acetic anhydride added. This decreases the washing time and gives a better result. It may not be necessary to separate the small amount of acetic acid present when the fats are to be used for technical purposes.

Nearly all fats and waxes can be bleached by concentrated hydrogen peroxide or by the combination of this with acetic anhydride. Mineral oils and waxes do not yield to this method but must be bleached by other means. A. Jordan. *Ole, Fette, Wachse, Seife, Kosmetik*, 1936, No. 13, 14-15.

◆

Fat Splitting

The Hoffmann method of fat splitting is a continuous combination of fat splitting and distillation of fatty acids. The fat is first refined by mechanical methods such as the addition of fuller's earth and filtration. It is then emulsified with water and passed through a splitting zone. The temperature in this zone is between 220° and 260° C. and the pressure is from 20 to 60 atmospheres. In a continuous manner the split products are forced into a high-vacuum expansion zone where the split products are converted to the gas phase; the unsplit oil and unsaponifiable matter remain in the liquid phase and can be drained off.

The remainder of the process pertains to fractionation of products. The glycerine fraction contains 80-90 per cent of glycerine and the water fraction 6 per cent of glycerine. Advantages of the process are: No chemicals are necessary for refining or splitting; it requires no accessory reaction, yields good-quality fatty acids and concentrated glycerine, splits about 99 per cent of the fat and requires less labor, room and upkeep than older methods. Erich Hoffmann. *Ole, Fette, Wachse, Seife, Kosmetik* **1936,** No. 13, 4-6.

◆

Sulfated Wetting Agents

Aliphatic alcohols of high molecular weight such as cetyl alcohol or alcohols obtained by oxidizing soft paraffin, are treated with halogenating agents and the halo products treated for a short time at a high temperature with anhydrous sulfonating agents. The alcohols may be sterified with a weak acid such as boric acid before the halogenation. The products are useful as wetting, dispersing and penetrating agents. Ernst A. Mauersberger. French Patent No. 801,106.

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Antioxidants and Rancidity

A preliminary classification of inhibitors of oxidation is based on the following observations. The crude esters of hydrogenated cottonseed and other vegetable oils by refluxing the oils with absolute alcohol and dry hydrogen chloride, are protected to a remarkable degree by oxalic acid, malonic acid, maleic, citric and other aliphatic dibasic acids,—by phosphoric acid, sulfuric acid and cephalin, and by some phenolic inhibitors. Hydroquinone is only slightly effective and inhibitol concentrates prepared from the unsaponifiable fraction of vegetable oils are inactive. When the esters are partially purified by fractional distillation *in vacuo*, they are only slightly protected by the acids or cephalin, but are protected by hydroquinone and the inhibitols.

The acid inhibitors and inhibitol concentrates have a pronounced synergistic effect when used together in the distilled ester preparation; the protection afforded by the mixture is much greater than by either alone. This phenomenon can also be demonstrated in lard, and in purified fatty acids and esters, and also with certain mixtures of phenolic and acid-type inhibitors.

A tentative classification of inhibitors into 3 groups is proposed: (1) acid-type inhibitors; (2) inhibitols and hydroquinone; and (3) other phenolic inhibitors. In general any type 1 inhibitor when used with any type 2 or 3 compound prolongs the induction period to a much greater extent than would be expected from a summation of the effects of each used alone. H. S. Olcott and H. A. Mattill. *J. Am. Chem. Soc.* **58,** 2204-8 (1936).

◆

Constants of Marine Oils

On the basis of results from analyses of herring oil, seal oil and whale oil from various sources during a number of years, it was concluded that the analytical constants, especially the iodine number, are typical not only for the various kinds of animals, but also for the various species within the same group. The iodine value also varies considerably for the same species according to variations in living conditions. It is indicated that a systematic evaluation of the analytical data may contribute to the knowledge of the wanderings of the various species and the variations in their nutrition. Jakob Lund. *Tids. Kjemi Bergvesen* **14,** 96-101.

◆

Drying Soap

Air with which soap is brought into contact during drying is first freed by absorption or adsorption from carbon dioxide, and if necessary, from other deleterious constituents such as sulfur dioxide or sulfuric acid. Arthur Imhausen and Werner Prosch. German Patent No. 635,091.

Increasing Dry Cleaning Detergency

DRY cleaning is a much less efficient cleaning process than wet washing, since it removes only grease and the dirt adhering to it. Ingrained dirt and stains are left almost untouched. Dry cleaning is in most cases only a preliminary operation either to spotting to remove different sorts of stains, or wet cleaning to remove water-soluble soil, or both. The following figures, obtained by one firm, show the percentages of different kinds of garments which require either spotting or wet cleaning after dry cleaning:

	Percent Passed	Percent Spotted	Percent Wet Cleaned
Dark suits (3 pieces)	55-65	25-30	10-15
Light suits (3 pieces)	45-60	25-45	10-15
Gray flannel trousers	30-40	40-50	20-25
Silk dresses	5-15	65-75	15-20

In addition to dry cleaning, spotting and wet cleaning, some firms employ a process which is a combination of wet and dry cleaning, called "paste soaping." This consists in brushing the linings of suits, coats and the hems of silk dresses with a pasty mixture of ammonium oleate and water. The garments are then dried with heat, which decomposes the ammonium oleate, the ammonia evaporating with the water, leaving only the oleic acid to be rinsed out in the dry-cleaning procedure. The great disadvantage of this process is that the brushing has to be done by hand.

Gray flannel trousers usually wash very well but can also be dry cleaned. It is probably a mistake to spend much time spotting garments if the stains can be removed effectively and quickly by washing. With silk dresses, wet treatment in most cases has to be carried out locally and very carefully.

Addition of water is a help in the dry-cleaning process. Thus a load of suits weighing 100-150 pounds, is cleaned in the usual way with a solution of dry-cleaning soap in white spirit (naphtha), in conjunction with a filter press or centrifuge. After cleaning for about 10 minutes, when the bulk of the dirt has been removed, 1-2 pints of water are trickled in slowly over a period of 15 minutes. The water must not be added before the bulk of the dirt has been removed, or the latter will be precipitated on the garments.

It would be unsafe to add water in this way to a load of colored silk dresses, but improved cleaning of this class of material can be obtained by using a much more concentrated solution of dry-cleaning soap than usual, containing a relatively high per cent of water. Thus a 5 per cent solution of a dry-cleaning soap containing 20 per cent of water may be used.

The nascent soap process can be applied to dry cleaning. This consists of making the soap in the cleaning solution itself in the presence of the soiled garments. The machine contains garments and a solution of oleic acid in naphtha. Ammonia is then added. Experiments on a laboratory scale have shown that excellent cleaning of artificially soiled fabric can be obtained in this way. It is possible to combine the addition of water with this process. For example, a mixture of ammonia, water and industrial alcohol is added slowly to a load of garments in contact with a solution of oleic acid in naphtha.

Carbon tetrachloride is used to some extent as a dry-cleaning solvent, with very satisfactory results. The most common non-inflammable solvent in use at present is trichloroethylene, the vapors of which appear to be nontoxic in small doses. This solvent has one serious drawback in that it has a solvent action on certain dyes used on cellulose acetate rayon. Another solvent now in use is perchloroethylene, which appears to overcome the handicap of trichloroethylene.

Improved cleaning can be obtained by using a dry-cleaning soap in conjunction with a chlorinated hydrocarbon. This has been confirmed in practice. It is necessary to modify the soap in order to conform to the special properties of these solvents. Although the requirements of a suitable soap have not yet been clearly worked out, it appears that the water-content should be reduced to a minimum, while alcohol should not be present. A proportion of soap of about 1:800 can be used. C. L. Bird. *J. Soc. Dyers & Colourists*, **52**, 456-8 (1936).

◆

Synthetic Detergent

A new form of synthetic detergent, stable to hard water and stable in an acid medium has been patented by Leper Brothers, Ltd., Liverpool. This detergent is unique in containing no salt-forming group. It consists of monofatty acid esters of one or more polyglycerols. Solubility in water results from the accumulation of aliphatic hydroxyl groups in the condensed glycerol molecules. The long-chain acyl ester confers the lathering power and other physical properties which make the material a good detergent. T. P. Hilditch. *Chem. Age* **35**, 558 (1936).

◆

Vegetable Sperm Oil

A vegetable oil or wax with a chemical composition similar to that of sperm oil has been discovered. The oil comes from the seed of a shrub which grows in Northern Mexico, Arizona and lower California. The seed has various names such as wild hazelnut, sheep nut or goat nut. The Mexicans call the plant jojoba. The seed yields 51 per cent of a light yellow oil. The latter is not a glyceride but a liquid wax composed of esters of high molecular weight, monoethylenic acids and alcohols. *Chem. Trade J. & Chem. Engineer* **99**, 492 (1936).

Products and Processes

Shaving Creams

In making shaving soap by the boiled process, the stearin, bleached lard and bleached tallow soaps are prepared in the soap pan with caustic potash lye and are salted out by potassium chloride. Coconut oil soap is prepared separately with caustic soda lye, as it is soluble in brine solution and cannot be easily separated by it. The two soaps are then mixed in the pan.

In applying the semi-boiled process, the tallow and coconut oil are run into the crutcher together and brought to a temperature of about 90° C. (194° F.) with steam. The solution of caustic soda is then added and the heating continued with occasional mixing until the alkali has reacted. Gradually add all but about 5 per cent of the solution of caustic potash and complete the saponification. Turn off the heat, start the crutcher and add the previously melted stearin in a continuous stream. Continue crutching for ½ to 1 hour. Remove samples, cool and test with phenolphthalein. If too alkaline, more stearin is added; if too acid, more potash lye. The indicator should give only a faint pink color after thorough crutching. Tragacanth softened with water can now be crutched in. A formula for a liquid shaving product and for a cream is as follows:

Shaving Cream for Bottling

Stearin	70%
Coconut oil	20
Peanut oil	10
Caustic potash 30° Bé.	56
Water	64
Alcohol	30
Glycerine	5
Boric acid	4
Perfume as desired	

Shaving Cream for Tubes

	Stearin	80%
	Peanut oil	5
	Coconut oil	15
Mix	Caustic potash 30° Bé.	40
	Water	17
	Perfume as desired	

The blending of perfumes requires practice. The following two blends are suitable for high class shaving preparations of all kinds and have been tried with success:

1. Oil of lavender	150 grams
" " bergomot	100 "
" " lemon	50 "
" " neroli	50 "
" " citronella	50 "
" " cassia	25 "
" " musk xylol	25 "
2. (Rose blend)	
Oil of geranium	50 grams
" " clove	10 "
Phenylethyl alcohol	10 "
Oil of sandalwood	10 "

After blending, the perfume should be allowed to stand for a time to mature. The amount to be used depends on the taste of the manufacturer. A. N. Ghose. *Indian Soap J.*, **3**, 126-7 (1936).

Brushless Shaving Cream

A good brushless shaving cream to be put up in tubes may be made according to the following formula: Bring to boiling 4 parts of triethanolamine and 3 parts of borax in 15 parts of pure glycerine (sp. gr. 1.23) and 120 parts of distilled water. Add with stirring, a melt at 70-80°C. consisting of 50 parts of stearin (titer 53-54°C.), 10 parts of anhydrous lanolin and 15 parts of liquid vaseline. Let cool to get a smooth cream which is perfumed to suit. *Seifensieder-Ztg.* **63**, 924 (1936).

Soap Packaging

Soap tablets designed to fit the hand are usually curved in shape and are occasionally ribbed along the edges. Although these easy-to-hold cakes present considerable technical difficulty when it comes to high-speed mechanical packaging, the sales appeal on the score of convenience and esthetic effect cannot be denied. Such cakes may be wrapped in cellophane but are more often put up in boxes. The French and Swedish manufacturers are stressing the importance of attractive wrapping. Bright colors should be given preference; cartons of course give more scope for color effect than wrappers alone. The use of gold or silver seals lends an air of distinction. Wrappings should also be considered from the point of view of storage and handling.

An idea partially related to wrapping is applied in the case of a soap which has a short piece of white ribbon embedded in the cake of soap itself. The ribbon is topped off with a small celluloid ring. This enables the soap to be hung over the washbowl or bath after use and prevents it from wasting away in a damp soap dish. This should appeal to the frugally minded. *Soap, Perfumery and Cosmetics* **1936,** 815.

Grooved Soap Cakes

Cakes of soap are provided with flat upper and lower surfaces and peripheral grooves or flutings which are parallel to the rubbing surfaces of the soap cake. These grooves extend without a break around the edges of the bar of soap. A resilient protecting sheath is adapted to be rolled or folded into the grooves as the soap is worn away. Claude I. Meyer. Canadian Patent No. 362,729.

Effect of Builders on Soap

The detergent power of a specific soap solution varies with the alkalinity. The addition of an alkaline builder at first increases and then decreases the detergent efficiency. With the addition of caustic soda, soda ash or trisodium phosphate, the maximum effectiveness is exhibited when the solution has a pH of about 10.73 at room temperature. The maximum detergent power obtained at optimum alkalinity with solutions of the same concentration of the same soap varies considerably with the nature of the added builder. These results indicate that the effect of the builder is not due solely to its action in altering the alkalinity of the solution but is to be attributed in part at least, to the specific effects of the added anions or cations or both.

In washing tests made with artificially soiled cloth at 60°C. the detergent action of a 0.25 per cent soap solution was found to be at a maximum when the alkalinity of the solution is adjusted to a pH of about 9.66. The addition of sodium chloride, sodium sulfate or sodium phosphate to soap solutions at the optimum pH at first increases and then decreases the detergent effect. The effectiveness of the added salt at the optimum concentration is approximately proportional to the valence of the anion of the added salt. Sodium borate and sodium acetate do not enhance the detergent action of soap. F. H. Rhodes and C. S. Wynn. *Ind. Eng. Chem.* 29, 55-7 (1937).

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Catalysts for Oil Hardening

One per cent of a nickel borate catalyst which had been reduced with hydrogen gave a reduction in the iodine number of rapeseed oil in 1 hour at 180° of 16.9. Similar tests with pure nickel and nickel-kieselguhr catalysts gave 10 and 41 respectively. Hydrolysis and washing the original nickel borate with hot water yielded a product which after reduction contained only about 15 per cent B_2O_3 and was about 3 times as active as that from untreated nickel borate. A catalyst prepared by precipitating with soda plus borax on kieselguhr, when tested as above on train oil having an iodine number of 169.4, reduced the iodine number of 95.2. The selectivity is exemplified by a test showing that only traces of insoluble bromides are derived from train oils having an original iodine number of 162.4, after they have been reduced to an iodine number of 100. E. Balani. *Allgem. Oel- u. Fet-Ztg.* **33**, 420-2 (1936).

◆

Free Alkali in Soap

In a new method of determination of free alkali, the soap is dissolved in a solvent composed of 100 parts of benzene, 75 parts of alcohol, and 2½ parts of water by volume. Titration is carried out at room temperature with 0.1 *N* acid using phenolphthalein as an indicator. Titration in this way gives a sharper endpoint which is not recurring, and sodium carbonate is only slightly titrated. A comparison of the new methods with the standard A.O.C.S. method, the absolute alcohol and the barium chloride methods shows that the results by the four methods differ initially but agree if corrections are made for the solubility of sodium carbonate in the various solvents and for the temperature coefficient of the endpoint. With the new solvent, soap builders exclusive of sodium silicate, can be conveniently separated from the solution simply by centrifuging, which has no effect on the free alkali, contrary to filtration procedures. H. H. Uhlig and F. C. Duemmling. *Oil & Soap* **13**, 307-14 (1936).

◆

Refining Oils

Fats and oils are emulsified by an agent readily separated therefrom, and are then refined and sterilized by electrodialysis in an electroosmosis apparatus. Walter Fuchs. German Patent No. 630,790.

◆

Disinfectant Soap

A disinfecting soap is made by adding insoluble sub-halides or thiocyanates of silver such as silver chloride to the soap. Oxygen-yielding agents such as sodium peroxide plus sodium pyrophosphate may also be added. Deutsche Goldund Silber-Scheideanstalt vormals Roessler. German Patent No. 632,825.

◆

Correlation of Iodine Number

In a study of 96 diversified samples of flaxseed, a correlation coefficient of 0.9965 between the Wijs iodine number and the refractive index of the freshly prepared oils was found. The standard error of prediction for the iodine number was ±0.82. By use of an equation a table has been prepared for converting refractive index readings into Wijs iodine numbers. The method is applicable only to freshly prepared cold-pressed oils or their equivalent from reasonably sound flaxseed.

Hand Soap

A paste for cleansing the hands, etc., has the approximate composition potassium soap 120, marble sand 70, glycerol 3, turpentine oil 1, petrolatum 1, and cetronella oil 3 parts. Konvent der unbeschuhten Karmeliten. Austrian Patent No. 147,024.

◆

Acidity of Sulfonated Oils

The acidity of sulfonated oils is determined by titration of the sample dissolved in an alcohol-ether mixture with standard alkali to a phenolphthalein end point. The method is not applicable in the presence of acid-reacting salts such as ammonium sulfate. Free caustic alkali in sulfonated oils is determined similarly by titrating the sample with suitable standard acid. Ralph Hart. Proc. Am. Assoc. Textile Chemists & Colorists. 25, P696-707 (1936).

◆

Bleaching Fats

A fresh mixture of a high-percentage hydrogen peroxide and acetone is used as bleaching agent. Alternatively, the fats may be treated successively with hydrogen peroxide and acetone. Instead of acetone a mixture of acetic acid and concentrated sulfuric acid may be used. Firma E. Merck. German Patent No. 632,516.

◆

Activating Bentonite

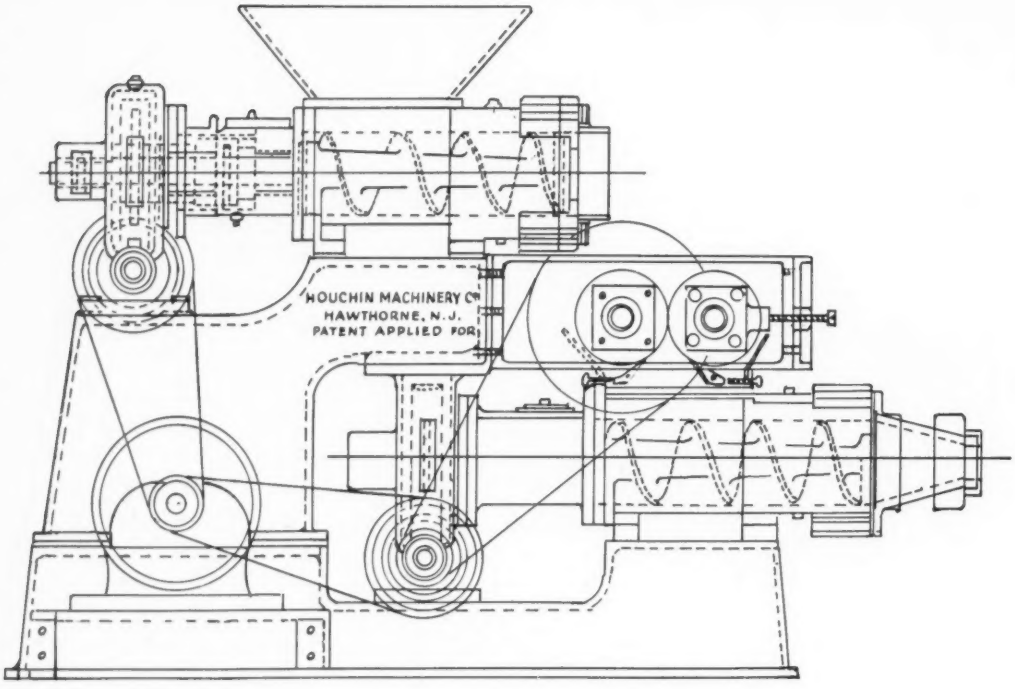
Bentonites are activated by boiling with dilute sulfuric or hydrochloric acid, draining and washing with water, as is usual, and then neutralizing to any degree by means of a solution of caustic soda or other base. The product may be used for filtering and decolorizing vegetable, animal and mineral oils and fats. Elmore McKellar and Reginald R. Cooper. British Patent No. 450,738.

◆

Paraffin Fatty Acid Comp.

The mixture of fatty acids obtained by oxidizing paraffin is heated with glyceroltrihydroxyethyl ether to give a clear oily liquid useful as a wetting or foaming agent. I. G. Farbenind. German Patent No. 630,526.

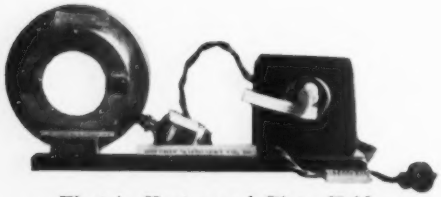
HOUCHIN MACHINERY CO., INC. HAWTHORNE, N. J.



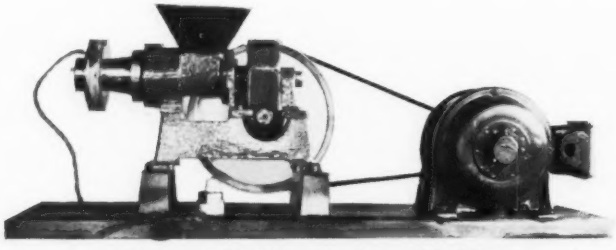
COMBINATION PLODDERS

With Double Head and Milling Attachment With Motor

Soap passing through the first time produces ribbons of soap. Second passing produces a fine finished, well compressed bar of Soap. For the second passing, remove Short Head on Second Plodder, bring Long Finishing Head in place. This Head is fitted with our Electric Heater and Plate Holder. A small stream of water passing through Plodder Cylinders and Rolls of Mill keeps the Soap cool, preventing the Soap from blistering. There is no dropping of Soap. The machine is very easily cleaned. It is excellent for short runs of Soap and saves Horse-Power.



Electric Heater and Plate Holder
By using this unit instead of steam, gas or lamp a uniform heat can be maintained. No more blistered soap. Made to fit all Plodders.



Laboratory Plodder, complete with Motor, Electric Heater, and Plate Holder.

Glycerine Recovery

Glycerine lye should be crystal-clear when warm and show 0.5 per cent of excess caustic soda. If not clear, more salt is put in the kettle. If the lye is too strong in caustic, a little more fat is put in tre kettle, and if too weak in caustic, more of the latter is added. The liquor is then pumped to a storage tank to cool. Any soap that may have remained in the liquor comes to the surface and is reclaimed.

From the storage tank the lye goes to the first treating tank in the glycerine room, where it is made slightly acid with muriatic acid and passed through the filter press. Any impurities soluble in alkali and insoluble in acid are removed in this way. The glycerine liquor is made alkaline again and refiltered to remove further impurities. It is next boiled down in the vacuum pan to a minimum glycerine content of 80 per cent. This constitutes the soap-lye crude glycerine of commerce. Once distilled, it becomes dynamite glycerine, and twice distilled U.S.P. glycerine. Note that in boiling down the glycerine lye, the salt is liberated, dried and used in the kettles again and again. Also note that in treating glycerine lye, muriatic acid is used, as the salt produced with caustic soda is common salt with a soft crystal. If sulfuric acid were used, Glauber's salt would result with a rock-hard crystal that would give trouble in the evaporator. John F. Savage. *Soap, Perfumery and Cosmetics* **1936,** 804-6.

"Maleic Value" of Oils

A new constant for oils similar to the "diene value" is suggested, based on the reaction of maleic anhydride with oils containing conjugated double bonds. This is termed "maleic value" and was developed with the use of tung oil.

Method for obtaining the new value — Weigh accurately approximately 3 grams of tung oil into a dry 250 cc. flask with a ground-glass neck. Add 25 cc. of a freshly filtered 6 per cent solution of pure maleic anhydride in toluene. Add a pinch of fine pumice powder to prevent bumping, and connect the flask to a reflux condenser. Dust the ground glass connection with very fine graphite before attaching the condenser. Boil the contents of the flask gently for 3 hours. Let cool a few minutes, drop a pinch of pumice powder into the top of the condenser and wash down with 5 cc. of water. Boil gently for 15 minutes. Let cool and add through the condenser 5 cc. of ether followed by 20 cc. of water.

Detach the condenser and transfer the liquid to a large separatory funnel, rinsing with three 20 cc.-portions of ether, then with three 25 cc.-portions of water. Shake and run off the aqueous layer into a 250 cc.-flask for titrating. Extract the ether solution further with 25 cc. and 10 cc. of water. Titrate the united aqueous extracts with *N* sodium hydroxide solution to a phenolphthalein end point. Carry through a blank experiment to determine the concentration of the maleic anhydride solution. The maleic value equals 12.692 times the number of cc. of *N* alkali used, divided by the weight of the sample in grams.

Maleic values obtained for various oil samples were as follows: Tung oil 69.7, oiticica oil 60.5, medicinal castor oil 10.5, perilla oil (A) 7.5, (B) 1.4, soybean oil 0.9, olive oil 0.9, refined linseed oil (A) 7.3, (B) 0.8, (C) 4.7.

The above method can be shortened by adding 0.2 cc. of a 0.1 *N* solution of pure iodine in toluene to the flask before attaching the condenser. This serves as a catalyst of the reaction. The flask is then heated only 1 hour instead of 3 hours. In either method the experimental error is probably ±0.3. B. A. Ellis and R. A. Jones. *Analyst* **61,** 812-6 (1936).

Beeswax Saponification Number

When determining the saponification number and the acid value of beeswax it is customary to dissolve the sample in hot ethyl alcohol but it is often difficult to obtain accurate results owing to subsequent precipitation when the solution becomes cold or is diluted. More consistent results are obtained in determining the acid value when 5 grams of wax are dissolved in 75 cc. of a mixture of 2 parts benzene and 1 part of ethyl alcohol, and in determining the saponification number by boiling with 75 cc. of benzene and 25 cc. of *N* potassium hydroxide solution dissolved in ethyl alcohol. B. Grodman. *Chemist-Analyst* **25,** 31 (1936).

Caustic Soda Production Up

Production of caustic soda in United States increased 71,560 tons in 1935 over the 1933 production, according to a special preliminary release of the U. S. Bureau of the Census based on data from the biennial census of manufacturers taken in 1936. In 1935, 758,543 tons were produced. The following table gives a comparison between production for the last two periods covered.

PRODUCTION OF CAUSTIC SODA AND CHLORINE, 1935-1933

	1935	1933
Sodium hydroxide (caustic soda)—		
Number of establishments	29	27
Total production, tons*	758,543	686,983
Made and consumed in same establishments, tons	39,087	42,252
Made for sale—		
Tons	719,456	644,731
Value	$28,104,631	$24,478,385
By process—		
Electrolytic—		
Number of establishments	21	21
Total production, tons	321,563	247,620
Made and consumed in same establishments, tons	34,797	39,114
Made for sale—		
Tons	286,766	208,506
Value	$11,233,704	$8,683,911
Lime-soda—		
Number of establishments	11	9
Total production, tons†	436,980	439,363
Made and consumed in same establishments, tons	4,290	3,138
Made for sale—		
Tons	432,690	436,225
Value	$16,870,927	$15,794,474

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Here's your problem: rising costs on yellow bar soap, without a corresponding increase in the selling price. And here's your answer: *Standard's new product, H-S Compound.*

H-S Compound permits crutcher mixes of 400 lbs. of silicate to 600 lbs. of kettle soap, with as much as 40% rosin soap. It prevents the graining in the frame so common with this type of soap. It produces a bar that is smooth, fine-looking . . . *a bar that will lather as well as one with a much higher fatty acid content.*

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STANDARD SILICATE DIVISION
DIAMOND ALKALI COMPANY
KOPPERS BUILDING . . . PITTSBURGH, PENNA.

P & G Add to Plant

A building permit has been obtained by Procter & Gamble Co. for construction of a tank mat addition to its huge branch plant, at Long Beach, Calif. Cost is estimated to be $15,000.

Bleaching Waxes

The colored resinous components of crude candelilla wax can be destroyed by oxidation with chromic acid, or they can be removed by melting the wax with 3 parts of paraffin and either allowing the resinous components to settle out or hastening their separation with the aid of activated carbon, fuller's earth or mixtures of these. Good results were also obtained by treating candelilla-paraffin mixtures with hydrogen peroxide and potassium permanganate. Other bleaching methods of both a physical and chemical nature failed to give satisfactory results.

Experiments with raphia wax alone and mixed with paraffin showed that satisfactory improvement in color can be achieved only with oxidizing agents, the best results being obtained with chromic acid. Unfortunately this treatment impaired the hardening properties of the wax, while milder oxidizing agents failed to reduce the color sufficiently. G. Schneider and R. Folgner. *Fette u. Seifen* **43,** 126-31 (1936).

New Oils for Soap

(*From Page* 37)

red nuts or seeds covered with a thin, easily removable shell, the whole fruit usually weighing about 3.5 grams. From fifty to sixty per cent of oil is present in the kernel. The oil is produced mainly in one or two modern factories, by both expression and extraction. Natives are employed to go far into the interior to gather the nuts, which are carried to warehouses and are stored and dried before being shipped to processing plants.

Oiticica oil is fluid and light-colored when first prepared, but after it has stood for a few days it becomes turbid. Solid matter, which varies in quantity with temperature, method of production, and other factors, separates out. The oil usually becomes thick and of a granular consistency if cooled below 25° C. Before 1935, practically no oiticica oil had been exported from Brazil. During 1935 4,000,000 pounds were exported, and during 1936, about 8,000,000 to 10,000,000 pounds were sent out. The saponification value of oiticica oil is around 190.

Another drying oil, rubberseed oil, used in the manufacture of soft soaps, is pressed or extracted from the seeds of the rubber tree, native to Brazil and cultivated in Borneo, Sumatra, and other tropical regions. This oil, with a saponification value of 186 to 195 and an iodine number ranging from 133 to 143, is usually high in free fatty acids on account of the poor keeping quality of the seed. As a rule the quantity of free fatty acids present does not warrant refining the oil. Soap made from rubberseed oil has a disagreeable odor.

Poppyseed oil, pressed from the seed of various poppy plants which have been cultivated for centuries in Europe, China, India, Asia Minor, Egypt, and in other places, is more expensive than other drying oils. The seeds, which contain from 44 to more than fifty per cent of oil, are generally subjected to a cold pressing, and then a hot pressing. The cold-pressed oil from good seed is pale to golden yellow in color. The hot-pressed oil is mostly used for industrial purposes.

Among the semi-drying oils, which generally have iodine numbers between 100 and 135, and saponification values of 183 to 194, are rice oil, sesame oil, sunflower seed oil, rapeseed oil, and others. Most of these are obtainable only at prices which preclude their employment in soap.

Rice oil, pressed or extracted from rice bran, has been known for many years as a soap oil, but it is not produced in large quantities. The oil, present in the bran to the extent of from eight to fifteen per cent, varies in color from yellowish-green to dark green, and contains a very active lipase which leads to rapid hydrolysis. The high content of fatty acids present, which has been found to be as much as fifty per cent and more has only permitted the use of the oil for soap making. Recently, however, oils have been prepared with free fatty acid contents of less than five per cent, suggesting possibilities that the oil may be employed in other directions.

Corn oil, in the crude state, selling now at prices which are more in line with most soap making oils, yields a soft soap when not hydrogenated. A firm soap stock is produced, however, from corn oil refining, if two per cent of soda ash is added. When used in soaps, corn oil finds its chief field in the potash type. Other similar oils, such as sunflower, sesame, and rape oils, are excellent food materials, and ordinarily too high priced to be significant to the soap maker. However, small quantities of these oils are used in the manufacture of soft soaps. With the consumption of food fats increasing, there is little possibility that these oils will find any great use outside of foodstuffs. Sunflower oil is obtained from the seeds of several varieties of a plant believed native to Mexico. Sunflower seeds are also produced in Russia—on the largest scale, and in China, Hungary, India, Argentina, and the United States. The seeds contain from 22 to 32 per cent of oil. Sesame oil is produced from the seeds of a plant grown in China, India, other countries of the Orient, Egypt, Mexico, and Africa. Rape oil comes from the seeds of a number of related species of plants which are extensively cultivated in Europe, India, China, and Japan

Since the increase in tariff and excise taxes on imports of many seeds and oils into the United States, brought about by the Revenue Acts of 1934 and 1936, there is a strong likelihood that the use of these and other imported oils for both technical and food purposes will continue to be reduced. No doubt they will be replaced by domestic soybean oil, cottonseed, peanut oil, and oils such as babassu which are imported free of duty and excise taxes.

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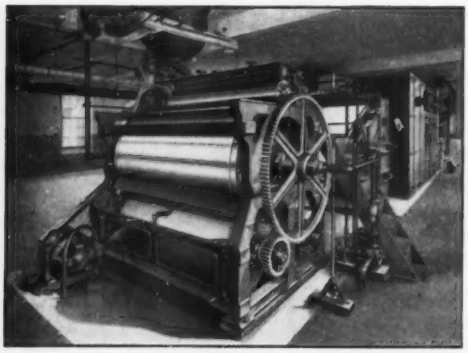

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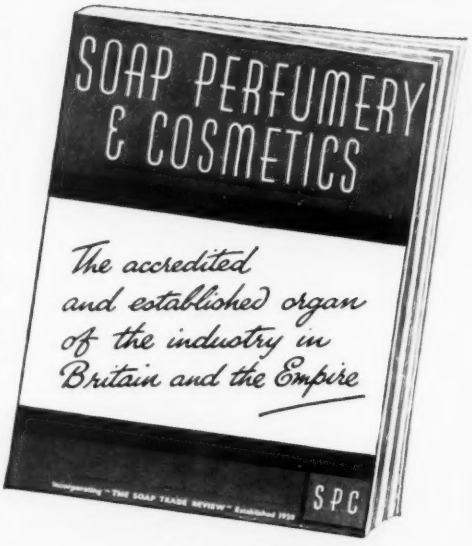

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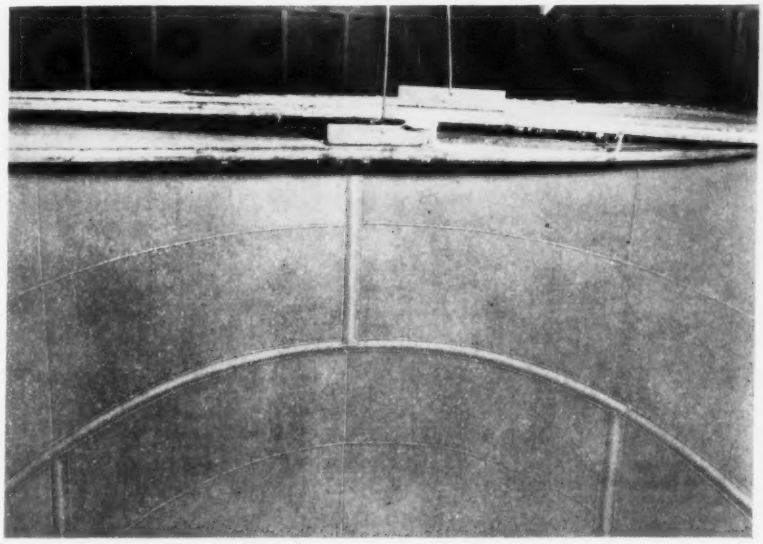

312—Steel Tank Lining

Ingersoll Steel & Disc Division, Borg-Warner Corp., Chicago, has announced a procedure for lining corroded steel tanks or for producing corrosion-resistant interior surfaces in new installations with stainless clad sheets. These sheets have a 20 per cent layer of 18 chrome, 8 nickel stainless steel. They are fitted manually to the walls of vessels, being secured by metallic arc welding. Further information may be obtained by writing the publishers of SOAP or Borg-Warner Corp.

◆

314—New Portable pH Meter

Thwing-Albert Instrument Co., Philadelphia, has just placed on the market a portable pH meter, particularly suitable for use in soap manufacturing and many other operations, which is available in two models, guaranteed accurate to .05 pH. The new instrument is said to be simple to operate, requiring no standardization before reading, and involving only a negligible temperature error. One model works on a simple potentiometric circuit and is equipped with quinhydrone and antimony electrodes. The other model utilizes a simple potentiometric circuit with vacuum tube amplification, and is equipped with quinhydrone, antimony, and glass electrodes. Descriptive folder available.

Publications

317—Chiris Price List

Antoine Chiris Co., New York, has just distributed its wholesale price list for 1937, covering a wide range of natural perfumes and aromatic chemicals. Copies available on request.

◆

318—Jobber's Price List

Elkay Products Corp., New York, has issued a new price list for jobbers of insecticides, moth preventives, disinfectants, cleaners, polishes, and other sanitary products.

◆

319—Vacuum Pump Bulletin

Beach-Russ Co., New York, has recently issued a new bulletin describing its single stage rotary high vacuum pumps, available in sizes from ¾ h.p. to 25 h.p. and capacities from 6 to 375 cu. ft. per min. Copies may be obtained from SOAP or from Beach-Russ Co.

◆

320—Materials Handling Equip.

Lewis-Shepard Co., Watertown, Mass., has just issued a new profusely-illustrated folder describing lift trucks, portable elevators, and other equipment for handling barrels, drums, carboys, etc. Copies are available on request.

◆

315—M. M. & R. Catalog

Magnus, Mabee & Reynard, New York, have just issued an unusually attractive, illustrated booklet describing their line of essential oils, aromatic chemicals, olive oil, etc. Copies are available through SOAP.

◆

316—Price List and Catalog

Chemical Supply Co., Cleveland, has recently issued a new price list and catalog covering its complete line of sanitary specialties. Copies available on request.

◆

Offers New Textile Specialty

Michel Export Co., 95 Broad St., New York, is offering a new textile specialty—Alfronin—which is said to be particularly useful in bleaching and dyeing operations, in de-gumming silk and scouring raw wool and in finishing operations. The company also imports other chemical specialty raw materials including super sulfates, used in textile dyeing and scouring and in other textile operations, Madropol, for softening suede and kid leather and for finishing textiles and a new product used in the manufacture of soapless shampoos not of the sulfonated oil type.

◆

Cleansing Agents

Hydrocarbon oils obtained from brown-coal tar are mixed with at least 50 per cent of aromatic or hydroaromatic hydrocarbons and then sulfonated in the presence of a small proportion of methyl alcohol (3-5 per cent). I. G. Farbenind. A.-G. German Patent No. 630,679.

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No. 2,063,972, Cleaning Composition, Patented December 15, 1936, by Elmer Wade Adams and Thomas Hunton Rogers, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill. The method of removing grease and incrustation deposits from fluid circulating systems without dismantling the same, which comprises circulating a cleaning agent through the system, the cleaning agent comprising the following proportion of ingredients: about three gallons of water, from 0.5 to 2 pints of a light mineral oil and from 1/3 to 1 pint of inhibited 25-30 per cent sulfuric acid.

No. 2,064,725, Detergent Composition, Patented December 15, 1936 by Waldemar Blech, Cleveland, Ohio, assignor to Thurlow G. Gregory. A relatively harmless water rinsible detergent composition for the removal of cellulose lacquer and stains from the skin and consisting essentially of:

	Pounds	
A highly volatile cellulose lacquer solvent capable of loosening cellulose lacquer from the skin and selected from the group consisting of ethyl acetate, butyl acetate, pentyl acetate, ethyl propionate, ethyleneglycol - mono - ethylether acetate, ethyleneglycol - mono - butylether acetate and mixtures thereof, approximately	10	to 20
Soap, approximately	8	to 20
Glycerine, approximately	5.5	to 16
Carbon tetrachloride, approximately	1.85	to 8
Water, approximately	15	to 30
An alkali from the group consisting of sodium hydroxide, sodium carbonate and mixtures thereof approximately	.75	to 3.5

No. 2,065,117, Water-Softening Cleanser, Patented December 22, 1936, by Bert O. Crites, University Heights, Ohio, assignor to The Climalene Company, Canton, Ohio. A process of making a water softening cleanser which comprises melting about 45 to 65 parts by weight of normally solid commercial soap-making fatty acids of not less than 98 per cent free acid content to a temperature of about 120° F., stirring the acid, adding about 35 to about 45 parts by weight of sodium sesqui-carbonate, and about 2 to about 10 parts of trisodium phosphate to the acid, and continuing the stirring action until balls of pebble-like character are formed, then disintegrating such balls to produce firm substantially dustless coherent particles of uniform composition.

No. 2,065,848, Process for Expelling Oil From Various Substances, Patented December 29, 1936, by Raymond T. Anderson, Berea, Ohio, assignor to The V. D. Anderson Company, Cleveland, Ohio. That process of treating oil bearing material of vegetable or animal growth to expel the contained oil therefrom, which consists in finely grinding the material and subjecting it to a temperature of the order of 220° F. to 260° F.; thereafter lowering the temperature of the mass to the order of 140° F. to 180° F.; adjusting the water content thereof not to exceed 4%; and finally subjecting the mass to the action of a continuously operating press, whereby the oil is expelled and a relatively dry cake produced.

No. 2,065,849, Germicidal Preparations, Patented December 29, 1936, by Carl N. Andersen, Wellesley Hills, Mass., assignor to Lever Brothers Company. A germicidal preparation of relatively low toxicity and adapted for use in suitable concentration in destroying bacteria in contact with tissue of a human being or other higher animal, comprising an aromatic mercury compound resulting from the reaction of a boron oxyacid with an aromatic mercury hydroxide of the kind in which the mercury is directly attached to the carbon atom of an aromatic structure in which none of the carbon atoms has direct linkage with any element other than carbon, hydrogen and mercury.

No. 2,066,184, Insecticide and Insect Repellent, Patented December 29, 1936, by Louis A. Mikeska, Elizabeth, N. J., assignor to Standard Oil Development Company. An improved insecticide, comprising a hydrogenated extract obtained by extracting petroleum oil with a solvent having a preferential solvent action for aromatic and unsaturated hydrocarbons of a petroleum oil separating the solvent from the extract, hydrogenating the separated extract and dissolving in the hydrogenated extract the active principles of a fish poisoning plant.

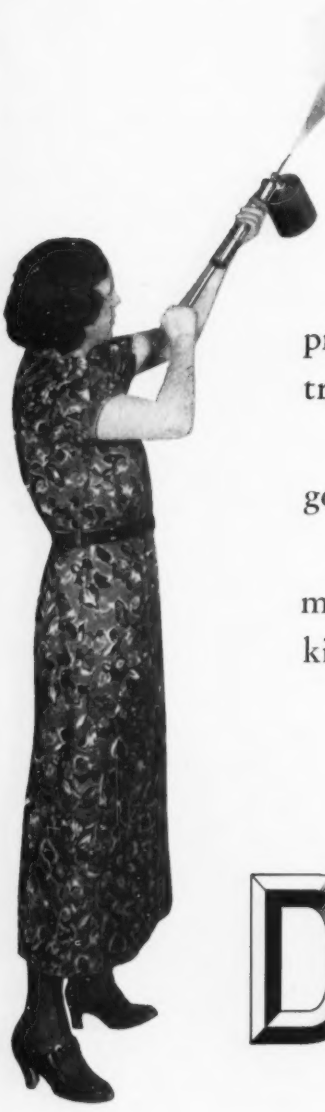
No. 2,066,208, Soap Composition, Patented December 29, 1936, by John B. Lewis, Cranford, N. J., and John C. Bird, Germantown, Pa., assignors to Standard Oil Development Company. A solid soap composition comprising about 65 per cent to 95 per cent of an alkali metal soap of a fatty acid, 5 per cent to 25 per cent of a hydrocarbon liquid and 0.5 per cent to 10 per cent of sulfonic acid salts derived from mineral oil acid sludge.

Ceylon Soap Output Gains

The manufacture of soap in Ceylon appears to be on the increase, but in spite of this the imports are still being well maintained. Toilet soap imports have risen a little, in fact, from 9,269 cwt. in 1934 to 9,581 in 1935. The value of imports is less, however, owing to the more expensive British products having been supplanted by cheaper Japanese brands. The United Kingdom continues to be the chief external source of supply of laundry soap. The Japanese figures for this type of soap have dropped from 2,321 cwt. in 1933 to 391 in 1935. The Ceylonese laundry soap imports total as much as 40,958 cwt., valued at Rs. 815,841, or approximately $300,000.

Chlorophyll Sales Agent

R. W. Greeff & Co., 10 East 40th St., New York, have been appointed exclusive sales agents for the American Chlorophyll, Inc., Alexandria, Va., producers of chlorophyll, according to a recent announcement. Greeff announce that they are offering oil, water, and alcohol soluble chlorophyll, wholly of American manufacture. American Chlorophyll is the only American manufacturer of this well-known green vegetable color.



Meet Mrs. Smith!

She never heard of Peet-Grady tests, and probably can't pronounce pyrethrum the first try.

BUT—she knows what she wants, and it's good business for you to see that she gets it.

When she buys liquid insecticides, 1937 model, Mrs. Smith demands, along with supreme killing power:

Complete freedom from "Kerosene Breath"

ana

Assurance against staining.

DEO-BASE

Reg. U. S. Pat. Off.

The modern base for liquid insecticides enables you to give your customers what they want—and more.

L. SONNEBORN SONS, INC.

REFINERS OF WHITE OIL AND PETROLATUM

Refineries: Petrolia and Franklin, Pa. Research Laboratories: Petrolia, Pa. and Nutley, N. J.
Manufacturing Plants: Nutley, N. J.

NEW YORK
88 Lexington Ave.

LOS ANGELES
215 West 5th St.

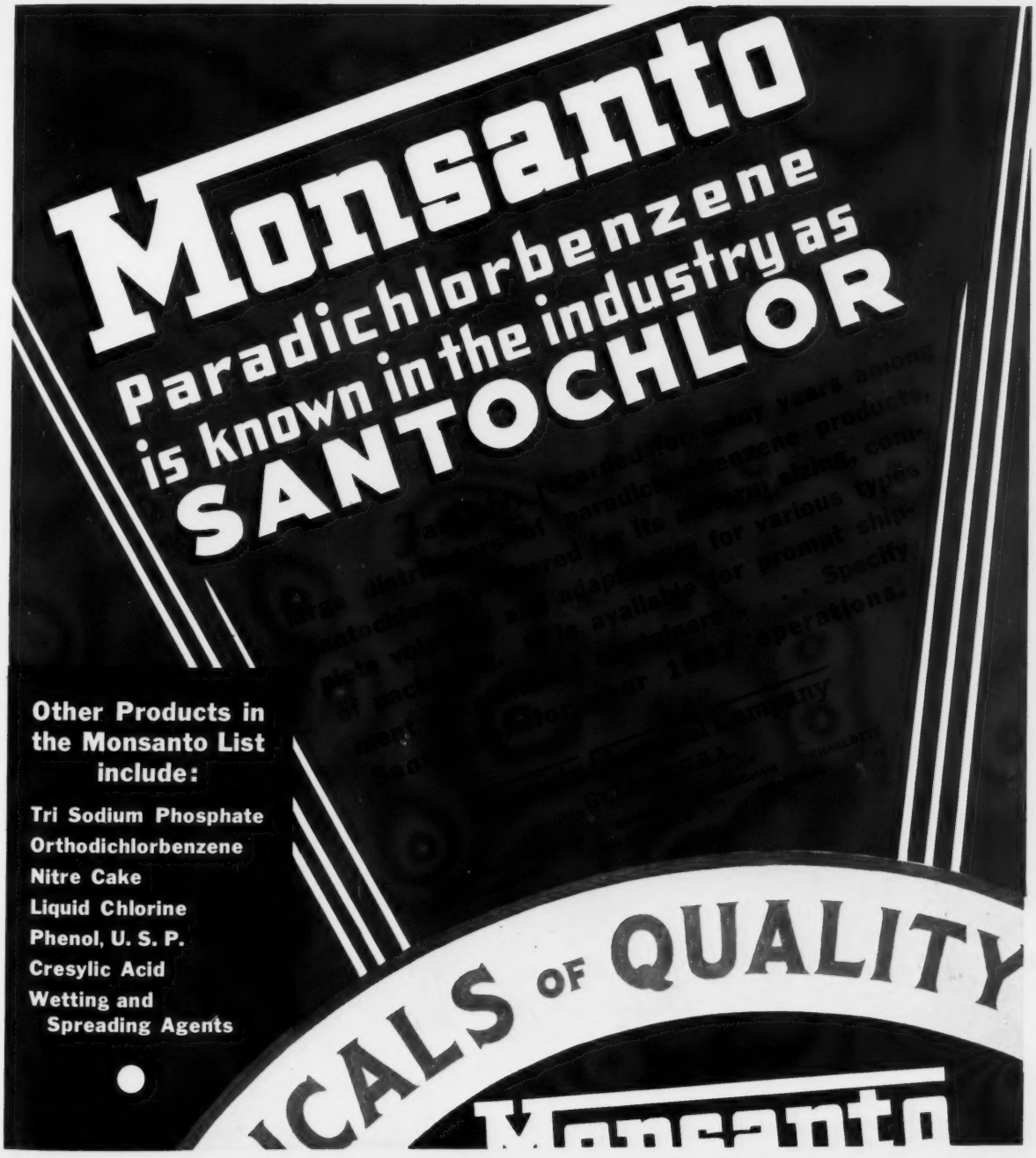
CHICAGO
400 West Madison St.

STOCKS CARRIED IN PRINCIPAL CITIES

SANITARY PRODUCTS

A Section of "SOAP" Dealing with

INSECTICIDES • DISINFECTANTS • EXTERMINATING
FLOOR PRODUCTS • SANITARY SUPPLIES • MOTH PRODUCTS



DEPENDABLE

There is no single factor as important to you as dependability in your finished Insecticide.

Pyrethrum and its products is our business.

We are familiar with some of your problems as a manufacturer, and, therefore, POWCO BRAND Pyrethrum Products are produced to give you maximum satisfaction and complete

"Killing Power—That's The Thing"

POWCO BRAND
REG. U.S. PAT. OFF

JOHN POWELL

Specialists in Rotenone

114 East 32nd Street

dependability,—to help you solve at least a few of your problems.

Our system of product control by adequate and qualified personnel takes into full account the variable factors in Pyrethrum, and makes for a standard of quality that is not surpassed.

Since it is "killing power value" that you pay for—*why not get the most for your money, by buying POWCO BRAND!*

"Killing Power—That's The Thing"

POWCO BRAND
REG. U.S. PAT. OFF

& COMPANY, Inc.

Pyrethrum and Products

New York, N. Y.

PYRETHRUM

MODERN DEODORIZING

of your products is the major feature at point-of-sale appeal today. The odor in vogue stimulates the demand for your product.

You Can Obtain Perfect Results with Economy

by using **Aromatic Products, Inc.**

DEODORIZING and PERFUMING MATERIALS

For Polishes

• AROPOLS

special products for white type of polish

For Fly Sprays

• ODOCENES

odors with remarkable covering power, possessing a clean refreshing scent

For Naphthalene

• NAPTENES

marvelous odors for perfuming Naptha Balls and Flakes

For Paradichlorbenzene blocks and Crystals

• PARAFUMES

special two in one odors to perfume and color in any process

For Embalming Fluids

• PERFORMALS

new chemicals to eliminate by-odors in modern embalming fluids

For Theatre Sprays

• SPRADORS

water soluble perfume oils for theatre sprays

A trial sample of the particular product in which you are interested will be gladly sent upon request.

BRANCHES

ATLANTA
284 MARIETTA ST., N.W.

BOSTON
LITTLE BLDG., 80 BOYLSTON ST.

CHICAGO
205 WEST WACKER DRIVE

AROMATIC PRODUCTS INC.

15 EAST 30TH ST., NEW YORK CITY

FACTORY STAMFORD, CONN.

There is No Substitute for Experience

So clear..You can read print through 12 inches

Amazing new clarity only one of four advantages of new Improved Pyrocide 20

TALK about a *clear* pyrethrum extract! Look at the picture at the right—then try to find another pyrethrum extract in the world that can duplicate the 12 inch test. You don't need your glasses to read every word of print—and you're looking at it through 12 solid inches of a solution of Deobase oil and Improved Pyrocide 20!

Your nose tells you another of Improved Pyrocide 20's big new advantages—it's practically odorless! Your perfume costs go down a half to two thirds—because you have almost no odor to cover up.

As for killing power—every pyrethrum user knows that MGK were first to offer a pyrethrum concentrate with standardized killing power and still do. Add the virtue of no staining — look at the price — the *same* as before — and you'll want to investigate Improved Pyrocide 20 before you make another batch of your household insecticide.

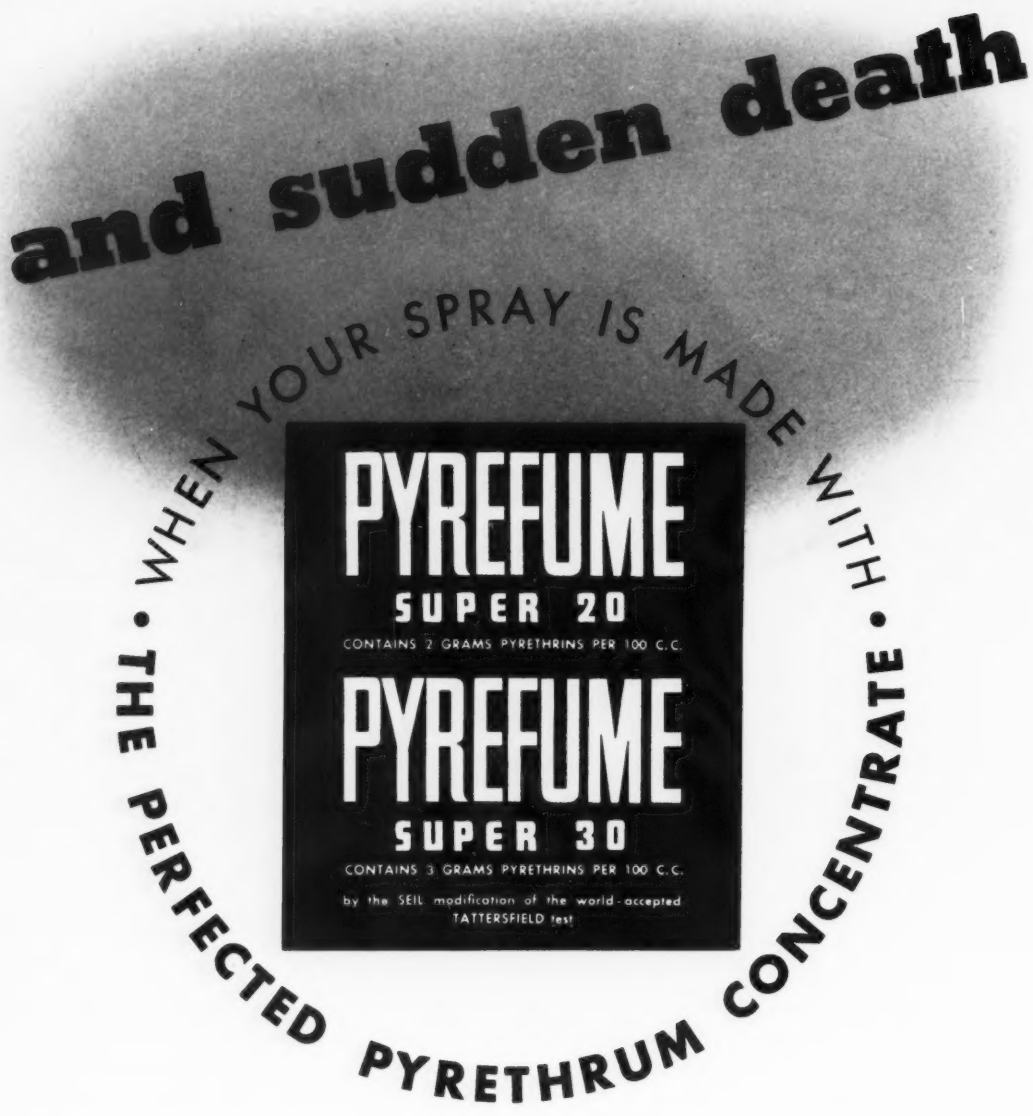
The purest and most stable form of pyrethrins available for commercial use, Improved Pyrocide 20 dilutes clear with Deobase, or any other base oil. For a concentrate practically 100% odorless, with only the aroma of pyrethrum flowers, we suggest Improved *Odorless* Pyrocide 20, at 15 cents a gallon more. Both concentrates are guaranteed to contain 2.4% pyrethrins by weight, or the equivalent of 2 grams per 100 c. c. For prices, facts and figures, write McLaughlin Gormley King Co., Minneapolis, Minnesota.

MAKE THIS TEST YOURSELF!

In a 500 c. c. graduated cylinder, dilute 25 c. c. of Improved Pyrocide 20 with 475 c. c. of Deobase oil (1:19). Let the solution stand overnight. Next morning hold the cylinder over printed matter and look through it vertically. You will be able to read the type as clearly as though looking through distilled water. Test any other extract the same way, note the difference and you will quickly realize that only Improved Pyrocide 20 achieves such brilliant clarity.

Improved **PYROCIDE 20**

THE ORIGINAL STANDARDIZED PYRETHRUM CONCENTRATE


and sudden death
WHEN YOUR SPRAY IS MADE WITH
PYREFUME
SUPER 20
CONTAINS 2 GRAMS PYRETHRINS PER 100 C.C.
PYREFUME
SUPER 30
CONTAINS 3 GRAMS PYRETHRINS PER 100 C.C.
by the SEIL modification of the world-accepted TATTERSFIELD test
• THE PERFECTED PYRETHRUM CONCENTRATE •

THESE products are not only physiologically tested in our PEET-GRADY chamber to confirm the killing power, but are also stabilized against inherent deterioration by the unique PENICK method.

In addition to being manufacturers of Pyrefume, we are the largest botanical drug firm in the world. Our vast physical resources and modern laboratories help up keep abreast of latest developments in all phases of the industry, and as a result, Penick products are universally accepted the world over as products of unquestioned quality.

Call On Us

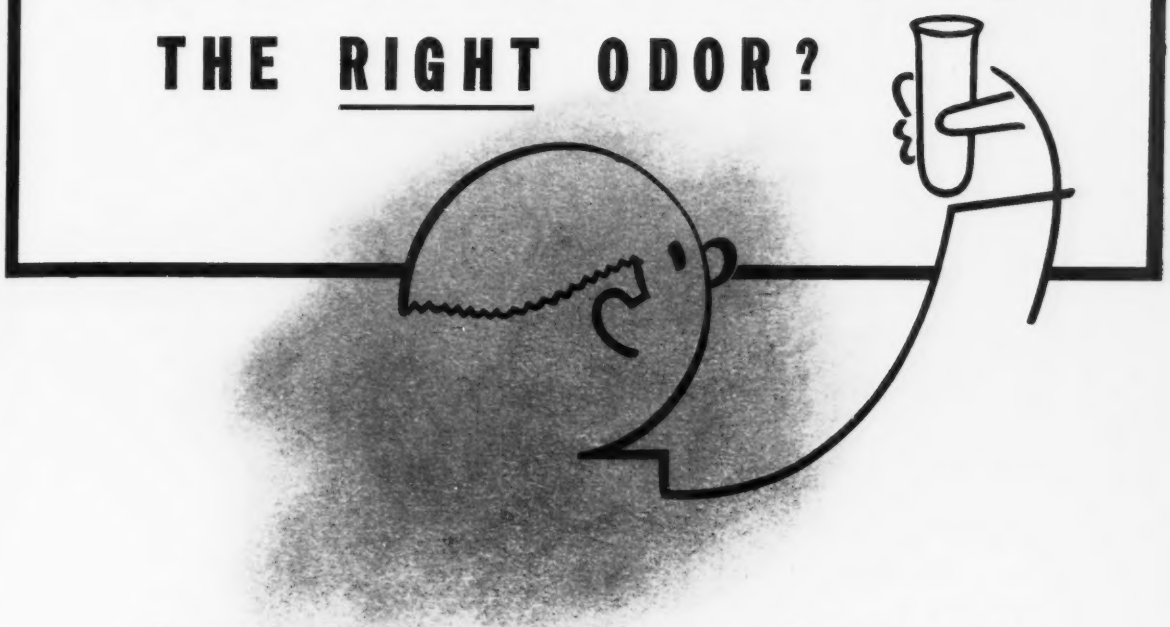
FOR TECHNICAL DATA ON DERRIS ROOT, CUBE ROOT and ROTENONE, which are now widely used — and also RED SQUILLS, Nature's destructive agent for rats.

S. B. PENICK & COMPANY

NEW YORK • CHICAGO

PENICK PRODUCTS ARE QUALITY PRODUCTS

Why not let experts help you get THE RIGHT ODOR?



A PLEASING scent is one of the most important ingredients in a modern fly spray, insecticide or disinfectant. It has tremendous sale and resale power. It is no easy task to select the right odor—the odor that will give the best results at the lowest cost. Givaudan experts, with their pioneer experience, can give you valuable cooperation in determining the right odors to use in your products . . . and how to use them in the most economical way. We invite you to call on us for cooperation and advice regarding your specific needs.

KEROZONE—Givaudan's newer fly spray odor—unusually different and refreshing—suggesting fresh, clean air.

CITRENE for soap, cleaners and polishes. Stronger, pleasanter, cheaper than Citronella.

FLORENE covers kerosene odor in fly sprays and insecticides with a sharp, clean, refreshing scent.

ODRENE for use alone or in combination in sprays, polishes. A powerful, low-priced oil.

LILAC SPRAY OIL B-3223-2 is especially blended to overcome the odor of kerosene in fly sprays.

NEW MOWN HAY OIL B-3470 is one of the most popular in fly sprays. Especially effective in killing kerosene odor.

PARATINTS color and perfume "paradi" blocks, bath salts or moth balls in one operation . . . and do it better because of uniform penetration and more effective perfumes.

GIVAUDAN
DELAWANNA INC.
80 FIFTH AVENUE NEW YORK, N. Y.

Branches: Philadelphia Los Angeles Cincinnati
Detroit Dallas Baltimore New Orleans
Chicago San Francisco Seattle Montreal Havana

Our New Plant and Warehouse

Is Now in Operation

PRENTISS PRODUCTS

for the manufacturer of
INSECTICIDES

•

PYRETHRUM
Ground for Percolation
Fine Powder
No. 20 Concentrate

•

DERRIS and CUBE
Fine Powder
Ground for Percolation
Minimum 4% and 5% Rotenone and with high content of total active extractives

•

PRENTOX CONCENTRATES
for
Household Fly Sprays
Live Stock Sprays
(both Oil and Water types)
Flea Soaps
Bed Bug Liquids
Horticultural Sprays
Mill and Warehouse Spray

BUILDING for the future, R. J. Prentiss & Co. have just put into operation a new plant and warehouse at 261 King Street, Brooklyn. In these new manufacturing quarters, which have just been put into operation, we have installed an entirely new milling unit which represents the best in modern drug and insecticide milling equipment.

In addition, the new plant will house a complete and up-to-date laboratory for the testing of insecticides and insecticidal materials. These improved facilities will permit even better and more prompt service to our customers.

We are glad of this opportunity to concentrate our research and laboratory facilities in one spot; we are glad to be able to offer to users of insecticidal materials these greatly improved manufacturing facilities; and finally we are pleased with the basic factor back of the new move, which is, of course, the increasing acceptance of PRENTISS PRODUCTS by the insecticide trade.

R. J. PRENTISS & CO., INC.

MAIN OFFICE
100 Gold Street
NEW YORK, N. Y.

FACTORY
261 King Street
BROOKLYN, N. Y.

Good Scents

NOWADAYS, TO

SELL FLY SPRAY

KEROSENE or other insecticide odor is especially unpleasant to the woman of fastidious tastes, who dislikes having her home, person and furnishings "smelled up."

A pleasantly perfumed spray is easy to sell—and fly spray manufacturers who are using Felton covering products have found this out—to their own and their dealers' profit!

Try Felton's economical neutralizing and perfuming agents.

They offer you maximum coverage, minimum cost, and the prospect of definite sale increase!

VITAFLOR No. 758— **Powerful Neutralizer**

KEREX L'ORIENT
KEREX BOUQUET
KEREX CHERIE

Neutralize and perfume in one operation at a cost of approximately 3c to the gallon of Fly Spray.

Write for Samples and Quotations

FELTON CHEMICAL COMPANY

Johnson Avenue, Brooklyn, N. Y.

MANUFACTURERS OF AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

ston, Mass. Boylston St. | Philadelphia, P 200 So. 12th S | St. | Chicago, Ill. 1200 N. Ashland Ave. | St. Louis, Mo. 245 Union Blvd. | New Orleans, La. Balter Bldg. | Los Angeles, Cal. 515 So. Fairfax Ave. | San Francisco, Cal. 512 Washington St.

POPULARITY

Odor determines popularity, and the experience of Norda in other lines doubly assures you of scent gradations—modern—in keeping with the times—and thus most popular.

Write for samples and prices.

★

DICHLOROMES NORDA

For Paradichlor Benzene

Series A $1.00	*Series B* $1.50	*Series C* $2.00
Bouquet A	Bouquet B	Bouquet C
Lilac A	Lilac B	Lilac C
Rose A	Rose B	Rose C
Violet A	Violet B	Violet C
Sweet Pea A	Sweet Pea B	Sweet Pea C
Gardenia A	Gardenia B	Gardenia C

SECTOROMES NORDA

For Fly Sprays

$.50 *lb.*	$1.00 *lb.*
Sectorome No. 1	Sectorome No. 11
Sectorome No. 2	Sectorome No. 22
Sectorome No. 3	Sectorome No. 33
Sectorome No. 4	Sectorome No. 44
Sectorome No. 5	Sectorome No. 55
Sectorome No. 6	Sectorome No. 66

Norda

ESSENTIAL OIL and CHEMICAL COMPANY

Chicago Office
325 W. Huron St.

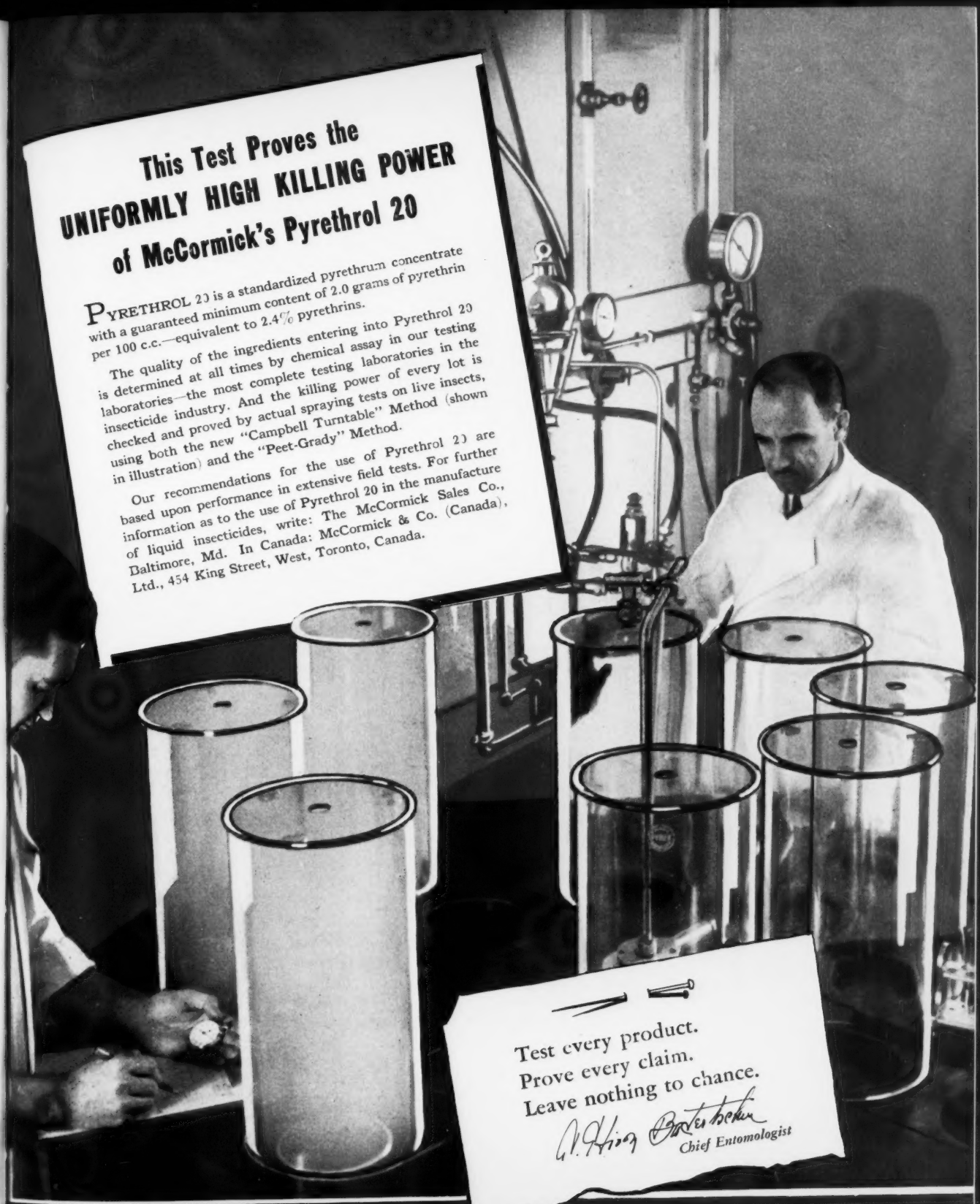
St. Paul Office
Pine and E. 3rd St.

New York Office
601 West 26th St.

Los Angeles Office
685 Antonia Ave.

Canadian Office
119 Adelaide St., W., Toronto

Southern Office
Candler Annex Bldg., Atlanta, Ga.


This Test Proves the
UNIFORMLY HIGH KILLING POWER
of McCormick's Pyrethrol 20
PYRETHROL 20 is a standardized pyrethrum concentrate with a guaranteed minimum content of 2.0 grams of pyrethrin per 100 c.c.—equivalent to 2.4% pyrethrins.
The quality of the ingredients entering into Pyrethrol 20 is determined at all times by chemical assay in our testing laboratories—the most complete testing laboratories in the insecticide industry. And the killing power of every lot is checked and proved by actual spraying tests on live insects, using both the new "Campbell Turntable" Method (shown in illustration) and the "Peet-Grady" Method.
Our recommendations for the use of Pyrethrol 20 are based upon performance in extensive field tests. For further information as to the use of Pyrethrol 20 in the manufacture of liquid insecticides, write: The McCormick Sales Co., Baltimore, Md. In Canada: McCormick & Co. (Canada), Ltd., 454 King Street, West, Toronto, Canada.
Test every product.
Prove every claim.
Leave nothing to chance.
Chief Entomologist
McCormick's
STANDARDIZED PYRETHRUM
AND DERRIS PRODUCTS
PYRETHROL 20 • PYRETHRUM POWDER • DERRIS POWDER
DERRIS EXTRACT • DERRIS RESINATE • ROTENONE CRYSTALS

Star Performers

in

INSECTICIDE *and* THEATRE SPRAYS

PERFUME OIL PINE

(Swiss Type)

Simulates the natural odor of Swiss Pine. Moderately priced, economical to use. Excellent for bath preparations, toilet soaps, theatre sprays, para blocks.

TREFLE PERFUME OILS

These all-purpose perfume oils give 100% perfume value. Absolutely free of alcohol or other diluents. Recommended for theatre sprays.

ST. AQUASOL BLUEBELL

Highly concentrated. 1 part perceptible in 5000 parts water soluble. Recommended for theatre sprays containing formaldehyde.

On the right are three typical M M & R perfume oils for insecticide sprays. On the left—perfume oils for theatre sprays. All have been developed and tested in our laboratories and are especially intended for the uses suggested. Why not send for working samples and try them out in your own products? If you have other ideas about odor types some of M M & R's other 270 perfume oils will meet your requirements. Just describe the odor you are using or have in mind for a new product and we will do the rest. You can improve your product without adding to its cost or you may be able to achieve equal results at a worth while saving by using M M & R products.

Yes, we supply perfume oils for other uses. Our extensive line includes specialties for toilet soaps, liquid soaps, polishes, paradichlorbenzene, naphthalene, laundry soaps, etc.

Testing Samples and the M M & R Catalog are Available on Request

PERFUME OIL CEDAR NO. 37

Since the odor of Oil Cedarwood is so weak we have developed this product to impart a strong cedar odor for Fly sprays.

KEROSPRAY BOUQUET HYACINTHE

A sweet odor of the new mown hay type. Well concentrated. A perfect blender.

KEROSPRAY BOUQUET "IT"

A pleasant odor—and very inexpensive. Covers obnoxious smell of petroleum solvents completely.

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS, BALSAMS, AROMATIC CHEMICALS, ETC . . . SINCE 1895

32 CLIFF STREET NEW YORK, N.Y.

What every woman wants

..your household insecticide can now give her..at a lower cost

YOUR sales costs are lower . . . your sales efforts more productive when you sell an insecticide your customers sell easier. That means an insecticide that has what every woman wants—high killing power, a pleasant aroma, no staining and a clear spray.

When you can find an improved pyrethrum concentrate that gives you all these—at a lower cost—you've got something and its name is Improved Pyrocide 20.

Two years ago, we started to improve the standard pyrethrum concentrate of America —Pyrocide 20. Firmly established as the standard for killing power, we could and did improve its other properties. We made it nearly odorless, cutting your perfume costs from ½ to ⅔. We made it clearer, so clear you can read print through 12 inches of a 1:19 dilution with Deobase oil. We made sure it would not stain when so diluted.

Then we tested in the laboratory, tested in the field, tested until we made sure that we could give you a stabilized concentrate that would give your household insecticide more of the qualities that women want.

With Improved Pyrocide 20, we believe we have again shown the value of our policy "First experiment, then test, then offer a thoroughly proven better product."

"When it's from McLaughlin, it's Tested"

McLaughlin Gormley King Company

MANUFACTURING CHEMISTS • • MINNEAPOLIS, MINNESOTA

No Guesswork about

Baird's

TRADE MARK REG.

DISINFECTANTS

Every Lot is Laboratory Tested . . . full strength . . . properly manufactured . . . certified by one of the leading bacteriological laboratories . . . and backed by a quarter-century of manufacturing experience.

COAL-TAR—Unadulterated high quality coal tar disinfectants, uniform, easily diluted and agreeable in odor. Do not deteriorate with age. Can supply any strength in any quantity from a pint can to a tank car. Rigid laboratory control guarantees consumer satisfaction.

PINE OIL—Prepared from pure steam-distilled pine oil. Dilute easily to form a rich white emulsion which does not separate on standing. Baird's pine oil disinfectants have a germicidal strength three to five times greater than pure carbolic acid.

Baird & McGuire, Inc.

HOLBROOK, MASS. ST. LOUIS, MO.

New York City and New Jersey Representative

EASTERN STATES SUPPLY CO., 127 Troutman Street, Brooklyn, N. Y.

Phone: EVergreen 8-2498

SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

AN announcement has been made that the 1937 Official Control Insecticide,—a composite liquid spray-type household insecticide for testing purposes only,—is now ready for distribution by the office of the National Association of Insecticide & Disinfectant Manufacturers, 122 East 42d Street, New York. This 1937 Official Control Insecticide is in no sense being issued as a standard. It is merely an insecticide testing yardstick by which other insecticides may be evaluated and compared by the Peet-Grady Method. Instructions for use are enclosed with each bottle of the Control Insecticide distributed by the Association. The Control Insecticide may be purchased in single six-ounce bottles or in cases of twelve six-ounce bottles direct from the Association office. For those who sell their insecticides on the specification of the Association, and who test by the Peet-Grady Method, a stock of the Official Control Insecticide is essential. You can obtain supplies now from the Association office. The 1936 Control Insecticide is now obsolete, and should not be used.

THE terrible floods in the Ohio and Mississippi Valleys have again focused attention of disinfectant manufacturers on that region. In any calamity of this type, particularly a flood where sewers are rendered useless and there remains no provision for the disposition of the wastes of a civilized urban community, the problem of sanitation and disease prevention becomes a gigantic one. There is no doubt but that the wide use of disinfectants is indicated by past experience if manufacturers will make their products available in time. In spite of the opposition of some public health officers to any type of disinfection, as was displayed in certain communities during the floods of last year, practical experience in the past proved the value of disinfectants in the work of rehabilitation. In cleaning away and rendering harmless to health the filth left behind by receding flood waters, disinfectants have a hundred uses of proved value. If health officers stand in the way, we suggest deliberately going over their heads, or of approaching the problem through private agencies of rehabilitation.

And this brings up the point that last year when the floods subsided, disinfectant manufacturers as a group promptly forgot the manner in which their products had been summarily rejected by certain health officials, mostly physicians. They probably have run into the same problem again in this latest calamity. Would it not be wise, perhaps, not to wait again until the emergency is upon us before some concerted action is taken to modify this attitude of officials toward disinfectants?

UPON occasion, we have been asked why we do not run more articles in SOAP telling people how to sell this and that. We have answered these queries uniformly with the statement that most of the articles which we have read here, there, and everywhere on selling, have been mostly just so much unadulterated bunk. Some of the best salesmen whom we know appear to break all the rules laid down by the sales "experts," and still they seem to sell more than the fellows who "follow the book." We feel that there never were two sets of sales experiences which were exactly alike, and we doubt also that these people who write of their sales experiences tell the whole truth. Maybe we are wrong, and if so, we stand to be corrected.

No Guesswork about

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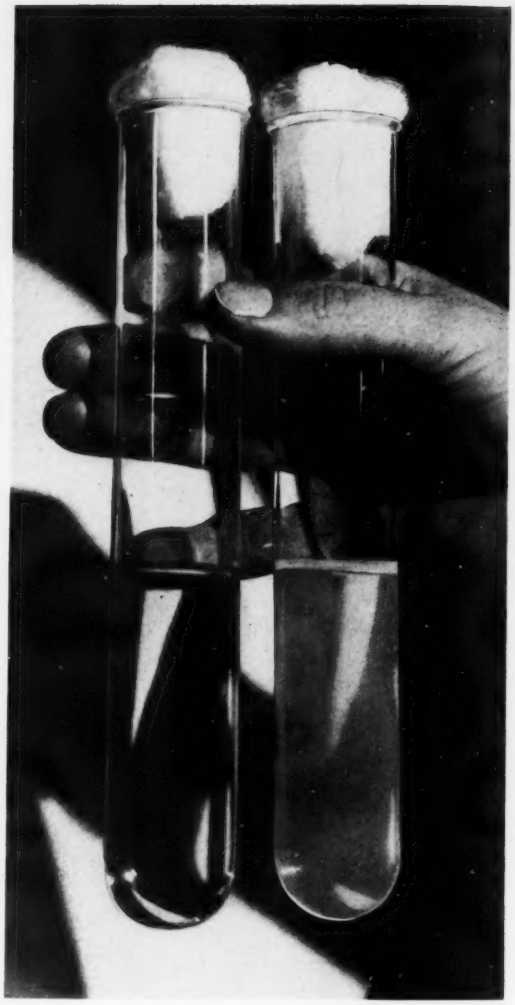

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Packaging Fly-Sprays in Cans

By Roger V. Wilson*
Continental Can Company

AT the December, 1935, Convention of this Association, Mr. David C. Hoyer presented a paper entitled, "Effect on Pyrethrum Fly Sprays of Metals and Other Materials Used in the Manufacture of Metal Containers."** The data presented indicated that confectioner's glaze, lead in any form, and acid soldering flux all had a definite deteriorating effect on pyrethrum fly sprays.

The conditions under which Mr. Hoyer's tests were carried out were different in several respects from those existing in commercially packed cans of fly spray. It, therefore, appeared desirable to find out how much deterioration would occur when fly spray was packaged in commercial cans made with and without these materials. Since confectioner's glaze is no longer in common use as an end seam compound for insecticide cans by our company, it also appeared desirable to find out whether or not the end seam compounds now used had a deleterious effect on pyrethrum fly sprays. To arrive at these facts, two series of tests were made with pyrethrum fly spray obtained from two large manufacturers.

Results of Tests on Series I

The insecticide in Series I was filled into eight different lots of cans, the specifications for which are given in Table I.

All of the cans in this series were filled with insecticide from Manufacturer A and stored at room temperature. Chemical analysis for pyrethrins (by the Seil Method) and also Peet-Grady tests were run on samples of each lot after four months and after seven months. The results are given in Table II.

Results of Tests on Series II

The insecticide (from Manufacturer B) in Series II was packed in two lots of cans, A and B, made at two different factories. The specifications for these cans are also given in Table I. The cans in lot A were commercial cans taken from factory stock. Those in lot B were commercial cans in every respect except that confectioners glaze was applied in the end seams over the regular rubber base coating.

A portion of both lots of filled cans was stored at room temperature and the remainder was stored continuously at 98° F.

The results of the analyses and Peet-Grady tests on Series II are given in Table III.

Accuracy of Results

As indicated in Tables II and III, the chemical analyses of these samples were made in our laboratories. Before starting this work, analyses were made on a sample of

* Address before 23rd annual meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Philadelphia, Dec. 1936.

** Published in the January 1936 issue of Soap p. 105.

TABLE I

DESCRIPTION OF CANS USED IN EXPERIMENTAL INSECTICIDE PACKS

Series No.	Lot No.	Plate Used in Mfg. of Cans	End Seam Compound	Soldering Method	Remarks
1	1	Coke	Confectioner's Glaze	Inside soldered. Rosin flux on both side seam and nozzle.	All cans in series 1 were ½-pint sanitary double seamed F style cans fitted with one-inch screw necks and regular foil felt caps unless otherwise specified.
1	2	Coke	Rubber Base	Inside soldered. Acid flux on both side seam and nozzle.	
1	3	Coke	Glucose Base	Inside soldered. Rosin flux on both side seam and nozzle.	
1	4	Special coated Mfg. Terne	Glucose Base	Inside soldered. Rosin flux on both side seam and nozzle.	
1	5	Coke	Glucose Base Glucose Base	Outside soldered. Rosin flux on both side seam and nozzle.	
1	6	Coke	Glucose Base	Outside soldered. Rosin flux on both side seam and nozzle.	Cans equipped with tin foil lined caps.
1	7	Coke	Rubber Base	Inside soldered. Rosin flux on side seam. Special non-corrosive flux on nozzle.	
1	8	Coke	Glucose Base	Inside soldered, Rosin flux on side seam. Acid flux on nozzle.	
2	A	Coke	Rubber Base and	Inside soldered. Rosin flux on side seam. Acid flux on nozzle.	All cans in series 2 were 1-pint sanitary double seamed F style cans fitted with one-inch screw necks and regular foil felt caps.
2	B	Coke	Confectioner's Glaze	Inside soldered. Rosin flux on side seam. Acid flux on nozzle.	

TABLE II

RESULTS OF TESTS ON SERIES 1 OF THE EXPERIMENTAL PACKS OF PYRETHRUM FLY SPRAYS

Pyrethrin I, mg./100 cc.	Lot. No. 1	Lot No. 2	Lot No. 3	Lot No. 4	Lot No. 5	Lot No. 6	Lot No. 7	Lot No. 8
In original sample	47	47	47	47	47	47	47	47
After 4 months storage	47	47	47	47	45	48	48	48
After 7 months storage	46	48	46	46	47	48	49	49
Pyrethrin II, mg./100 cc.								
In original sample	59	59	59	59	59	59	59	59
After 4 months storage	55	51	55	54	52	52	53	54
After 7 months storage	58	57	55	54	53	54	57	53
Total Pyrethrin, mg/100 cc.								
In original sample	106	106	106	106	106	106	106	106
After 4 months storage	102	98	102	101	97	100	101	102
After 7 months storage	104	105	101	100	100	102	106	102
Peet-Grady Test								
After 4 months storage								
% down	96	96	96	95	98	98	98	98
% dead	80	80	77	79	80	81	80	81
After 7 months storage								
% down	98	99	99	98	99	99	99	99
% dead	76	78	81	79	79	79	80	80

NOTE: The samples were stored at room temperature.
The pyrethrin content of the original sample was determined by the manufacturer. The pyrethrin content after storage was determined in the Continental Can Company laboratories.
The Peet-Grady tests were conducted by Mr. A. G. Grady, entomologist, Sinclair Refining Company, East Chicago, Indiana.

pyrethrum fly spray also analysed in the Sinclair Refining Company laboratories. Very close agreement was obtained.

Duplicate analyses on the same samples indicate that the results are accurate to approximately ± 1 mg. for Pyrethrin I and ± 2 mg. for Pyrethrin II.

All the analytical results given in the Tables II and III are the average of two determinations on the same sample.

The Peet-Grady tests were run in the usual manner by Mr. A. G. Grady co-inventor of the test. All results given in this paper were the average of ten tests conducted by the standard method.

Discussion of Results

Although there are some minor irregularities in the results obtained at the different examinations, it will be noted that there is no significant deterioration apparent in any one lot of cans. This is true of both the chemical analyses and the Peet-Grady tests.

There is an obvious discrepancy between the relative pyrethrin contents and kills of the two samples. In Series I, a kill of 80 per cent appears to be exceptionally high for a spray containing 100 mg. of pyrethrins per 100 cc. However, this has no direct bearing on the conclusions to be drawn from these experiments.

Conclusions

Although additional samples of both Series of tests are still under observation, the following tentative conclusions may be drawn at this time:

1. Neither confectioner's glaze, nor the rubber or glucose base end seam can compounds tested have a deteriorating effect on pyrethrum fly sprays when applied in the usual manner on commercial cans.

2. Neither solder nor foil lined caps appear to have a deteriorating effect on pyrethrum fly sprays packaged in tin cans.

3. Acid soldering flux as commonly used in the manufacture of fly spray cans does not affect the quality of the product.

4. Cans made from Special Coated Manufacturing Terne Plate are apparently satisfactory for packaging pyrethrum fly sprays.

The writer wishes to express his sincere appreciation to N. J. Gothard, Assistant Chief Chemist of the Sinclair Refining Company for his hearty cooperation in the planning of this work and to Mr. A. G. Grady, Entomologist for the Sinclair Refining Company for conducting the Peet-Grady tests here reported.

TABLE III

RESULTS OF TESTS ON SERIES II OF THE EXPERIMENTAL PACKS OF PYRETHRUM FLY SPRAYS

	Lot A (stored at room temp.)	Lot A (stored at 98° F.)	Lot B (stored at room temp.)	Lot B (stored at 98° F.)
Pyrethrin I, mg./100 cc.				
In original sample	55	55	55	55
After 4 months storage	56	54	56	54
Pyrethrin II, mg./100 cc.				
In original sample	69	69	69	69
After 4 months storage	69	68	70	73
Total Pyrethrin, mg./100 cc.				
In original sample	124	124	124	124
After 4 months storage	125	121	126	127
Peet-Grady Test %				
In original sample down	97	97	97	97
% dead	75	75	75	75
After 4 months % down	97	98	97	97
storage % dead	74	73	73	73

Note: The Peet-Grady tests were conducted by Mr. A. G. Grady, entomologist, Sinclair Refining Company, East Chicago, Indiana. All chemical analyses were made at the Continental Can Company laboratories.

Toxicity of Thiocyanates

By D. F. Murphy

Rohm & Haas Company

DURING recent months, papers have been published in which the question of the toxicity to warm-blooded animals of various insecticidal principles has been discussed. It is felt, however, that an accurate view of the toxicity picture, particularly in regard to the non-toxic character of the organic thiocyanates, has not been presented in all cases. Inasmuch as most of such toxological information has appeared in SOAP, we have opened its text pages to a manufacturer of an organic thiocyanate product so that he may state the case for his product and present pertinent data.—The Editors.

DURING the past few years, a number of publications have given data on the toxicity of various materials used as insecticidal concentrates. It is obvious that products such as insecticides which are widely used in the household and in possible contact with food products and other materials, have to be safe. Consequently the first step to be taken during the development of any household insecticide material, is to investigate and establish its safety to warm blooded animals and man before exploiting it commercially. In this discussion, it is the author's purpose to review data on the toxicity of the synthetic aliphatic thiocyanate, Lethane 384,* and to compare the toxicity of this product with that of pyrethrum, rotenone and a number of other products which are widely dispensed to the public.

All chemicals and drugs are toxic to animals when administered in sufficiently large doses. The significance of toxicity figures, however, is determined by the quantities required in any finished product. It is this practical consideration, the toxicity of the finished product, which is of prime importance to the manufacturer and his consumer. And the author desires to emphasize that the safety of Lethane 384 was very definitely established as a part of extensive research work on aliphatic thiocyanates for insecticidal purposes. Later investigations have confirmed the results of the original toxicological work.

The toxicology of Lethane 384 was first completely investigated in 1930 by Dr. Withrow Morse, formerly Professor of Physiological Chemistry at Jefferson Medical College in Philadelphia. Morse's work and the interpretation of his results were carried out in close cooperation and consultation with the late Dr. Frank M. Underhill, head of the Department of Toxicology at the Yale University School of Medicine. In this work Morse employed white rats, guinea pigs, dogs and rabbits. Hundreds of animals were used in this study and the results are listed in Table I.

TABLE I

Minimum Lethal Dose for Lethane 384 as Determined by Morse—Expressed as cc's per Kilogram

	Administration	
Animal	*Intravenous*	*Stomach*
White Rat	0.015	0.5
Dog		0.033
Rabbit	0.015	0.13
Guinea Pig	0.36	0.25

Morse also studied the toxicology of Lethane 384 from other standpoints. For instance, he placed two cats in a closed Peet-Grady chamber and exposed them to a continuous spray of a 4 per cent solution of Lethane 384 in kerosene for 24 hours. At the end of this time, these animals were removed from the chamber, placed in an ordinary room and fed. They were observed for approximately two weeks at which time they were killed and autopsied. In neither case could Morse find any evidence of pathological changes after very thoroughly examining the lungs, brain, stomach, heart and other organs.

Morse used a considerable number of human beings for skin irritation tests using Lethane 384 concentrate throughout. In these tests each person received the Lethane on wrist, forearm and face. Of some 30 people involved in these tests, only one showed a tendency to be irritated by the concentrate when it was swabbed on the underside of the wrist. Application of a finished spray containing 4 per cent Lethane 384 showed no irritation whatever in any case.

On the basis of Morse's work, Dr. Underhill stated: "Upon the basis of the technical experiments submitted by Morse, I am of the opinion that Lethane as it comes to the ultimate consumer cannot be regarded as a substance containing hazards to health."[1]

To make doubly sure of these facts, this entire problem was given to another independent toxicologist, Dr. George B. Wallace, head of the Department of Pharmacology of the New York University School of Medicine. Table II shows the MLD[2] for Lethane 384 as established by Wallace's work.

* Lethane 384 is a 50 per cent solution, in kerosene, of beta butoxy beta' thiocyanodiethylether (n-butyl carbitol thiocyanate).

[1] Dr. Underhill's letter of February 4, 1931.

TABLE II

MLD for Lethane 384 as Determined by Wallace—Expressed as cc's per Kilogram

	Administration				
Animal	*Intraperitoneal*	*Mouth*	*Subcutaneous*	*External*	*Stomach*
Rat	0.06	0.8	0.6	0.7	
Cat	0.06	0.2	0.2		0.075
Dog	0.06		0.4		
Rabbit	0.06	0.15	0.125	0.3	0.1
Guinea Pig ..	0.06	0.3	0.45	5.0	

In interpreting his results Wallace wrote as follows:—[2]"I carried on a very careful experiment on 5 different types of warm blooded animals; rats, guinea pigs, rabbits, cats and dogs. Lethane 384 was administered intraperitoneally, subcutaneously, by stomach and externally on the skin. Taking these experiments as a whole, with allowances for species variations, I am of the opinion that it would require almost one ounce taken internally in one dose, and probably several times this quantity applied to and left on the skin at one time to have dangerous effects on a man of average size and weight. In sublethal doses, the body oxidizes the Lethane so that there is no cumulative effect. These doses are quite high compared with the lethal doses of some commonly used parasiticides, such as arsenic, which are sold without restriction to the public. They are much higher than the dose of some chemicals regularly handled by inexperienced people, for example, ammonia. Lethane 384 concentrate, therefore, may be looked upon as having no significant health hazard in the hands of manufacturers of insecticides. A 4 per cent solution of the Lethane 384 in kerosense, which is the highest percentage recommended for household sprays, would be entirely safe to use. Only a very large dose such as about 20 ounces taken by stomach or 70 ounces spread over the skin, in a single dose, would be considered dangerous to man but it would be practically impossible to apply such doses. The kerosene might easily prove to be more dangerous in these cases than the insecticidal principle contained therein. Consequently, household sprays containing Lethane 384 are not to be considered as being appreciably more hazardous to health or life than kerosene."

Recently Von Oettingen et al.[4] published a study on the relative toxicity of various rhodanates. Among the materials studied was n-butyl carbitol rhodanate which is synonymous with n-butyl carbitol thiocyanate. Lethane 384 is a 50 per cent solution of n-butyl caribitol thiocyanate. The values that Von Oettingen reports for n-butyl carbitol thiocyanate in the study he made on white rats compare very closely with those found by Wallace when correction is made for the concentration of the thiocyanate. Thus for subcutaneous injection the minimal lethal dose for Lethane 384 as reported by Wallace is 0.6 cc per kilogram. Von Oettingen found for pure n-butyl carbitol rhodanate 0.5 cc per kilogram.

Discounting any effects the kerosene may have had and correcting for the thiocyanate concentration, Von Oettingen's figures would indicate an MLD of 1 cc per kilogram for Lethane 384, which is less toxic than Wallace found. With oral administration of n-butyl carbitol rhodanate Von Oettingen found 0.15 cc per rat. Weights of these animals are not given but, in a group of 8 rats (p. 317) the weights averaged around 242 grams, which would give a dose of 0.6 cc per kilogram. Oral administration of Lethane 384 by Wallace indicated a minimal lethal dose of 0.8 cc per kilogram. Correcting for thiocyanate concentration Von Oettingen's figures would indicate a dosage for Lethane 384 of 1.20 cc per kilogram. This again indicates less toxicity than Wallace's study. Skin irritation tests and other tests by Von Oettingen were conducted by methods different from those of Morse and Wallace and the results cannot be directly compared.

In addition to the above data, there is this further and very substantial support for the facts showing that Lethane 384 is without significant toxicity to warm blooded animals:—Dr. Geo. M. Piersol,[5] in the early part of 1935, thoroughly examined 9 of the men who had been working for the longest period of time in the Lethane manufacturing department of the Röhm & Haas Company for general physical condition and particularly for any indications of ill effects from close association with the thiocyanate. These employees had worked with the concentrated thiocyanate and in many instances they frequently came in close contact with the concentrated material during the process of its manufacture. They had been working in this department for 1,050, 1,300, 1,700, 2,100, 2,335, 2,625, 3,250 and 10,500 hours respectively. Dr. Piersol reported—[6]"This group of nine employees examined by me are generally speaking in excellent physical condition. The only abnormalities found of any importance were a chronic albuminuria in one, a set of badly infected tonsils in one, mitral valvular insufficiency in one and in two, abnormally rapid pulses. These findings could all be traced to diseases that occurred earlier in their lives. None of these conditions could by any possible chance be attributed to their present occupation. In no instance was there any evidence of blood destruction. In each case the blood was counted and carefully studied; nor was any disease of the nervous system discovered. In this group we were absolutely unable to demonstrate anything that even remotely suggested an occupational disease."

This report of Dr. Piersol summarizes one of the most significant pieces of evidence concerning the safety of Lethane 384 that could be desired. It should leave no doubt

[2] Dr. Wallace's letter of September 5, 1935.
[3] Minimum Lethal Dose.
[4] Journal Industrial Hygiene and Toxicology—Vol. 18, 1936, page 310.
[5] Professor of Medicine and Vice Dean in the Graduate School of Medicine, University of Pennsylvania.
[6] Dr. Piersol's letter of May 23, 1935.

TABLE III

Comparison of Toxicities in Terms of Grams per Kilogram of Body Weight

Compound	*Dosage*	*Method of Administration*	*Animal*	*Reference*
Strychnine	0.001-0.003	Oral	Rabbit	Maurel, C. r. Soc. Viol. 1908 Vol. 1 p. 353
	0.001-0.0012	Oral	Dog	Rieder, C. Nauny-Schmiedeberg's Arch. 1910 Vol. 63 p. 303
Arsenic	0.075	Oral	Dog and Rat	Schwartze: Pharm. & Exp. Ther. 1922-1923—Vol. 20 p. 181 Rouyer: Virchow-Hirschs Jahresberichte 1876 Vol. 1 p. 405
Nicotine	0.01	Oral	Cat	Hatcher & Eggleston J.A.M.A. 1914 Vol. 63 p. 469
Caffein	0.15	Oral	Dog-Cat Rabbit	Solis-Cohen-Githens: Pharmico Therapeutics Salant-Rieger: U.S.D.A. Bureau Chem. Bull. No. 148
Pyrethrins	0.008-.01	Intravenous	Dog-Rabbit-Cat	Solis-Cohen-Githens: Pharmico Therapeutics (Fujitani: Jl. Tokio Chem. Soc. 1919 Vol. 40 p. 47) Chevalier—J. c. r. Bull. sc. Pharmacol. 1930 Vol. 37 p. 155
	0.2-0.3	Intraperitoneally	Rabbit	Fujitani, Arch. Exp. Pathol. and Pharm. Schmiedeberg—Vol. 61, pg. 47, 1909.
Rotenone	0.025	Oral	Rat	Lightbody, N. D. & Mathews, J. A. Jl. Indus. & Eng. Chem. 1936 Vol. 28 p. 809
Aspirin	0.1	Oral	Man	Underhill & Koppanyi: Toxicology 3rd Edition; page 271
	0.2	Oral	Dog	Chistoni-Lapresa: Arch. Pharmacol. 1909 Vol. 8 p. 63
n-butyl carbitol thiocyanate	0.5 0.6	Subcutaneous Oral	Rat	Von Oettingen, W. F., Hueper, W. C., Deichmann-Gruebler, W. — Jl. Indus. Hygiene & Toxicology — 1936 Vol. 18 p. 310
Lethane 384	0.6 0.8	Subcutaneous Oral	Rat	Paper to be published by Dr. Wallace elsewhere.

as to the safety of Lethane 384 as it is sold to insecticide manufacturers and particularly, as it is used in the finished spray and distributed to the public.

The data given above will be understood and appreciated better if they are compared with similar figures for other well-known and widely distributed drugs. The data given in the literature show very great variations, but those given below, in Table III, are thought by toxicologists to be fairly well established

Assuming that these figures are correct, it will be seen that Lethane 384 is about three times less toxic than aspirin, about four times less toxic than caffein, and eighty times less toxic than nicotine. It should be stated that very few minimum lethal dose data are available for pyrethrins. On the other hand, the values for rotenone are well established and show it to be about thirty times as toxic as Lethane 384.

In summary, on the basis of data discussed above, any one of the three insecticidal principles discussed, pyrethrins, rotenone and butyl carbitol thiocyanate, must be considered entirely safe in the public's hands, if used as intended by the manufacturer. A practical demonstration of this conclusion is the fact that millions of gallons of insecticide employing Lethane 384 as the toxic agent have been manufactured and sold widely over the last seven years. No single case has been reported in which any ill effects could have been attributed to Lethane 384. Pyrethrum has been used extensively over a long period in dusts and liquid insecticides, and has been considered safe. Rotenone has also been used, without danger, in insecticides, in considerable quantities, although over a shorter period than pyrethrum. This widespread use by the public of these three insecticidal principles in enormous quantities of insecticides over an extended period of years without deleterious effects to the consumer, is sound proof of the conclusion drawn above; that is, that Lethane 384, rotenone and pyrethrum as used in the fly spray type of insecticide are without hazards to health.

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Rotenone Determination

An improved, though not greatly altered method for rotenone determination involves the following points: Ethyl acetate is a very efficient solvent for rotenone in derris and *Mundulea* samples. Using this solvent, the Soxhlet extraction is replaced by a hot percolation taking only ¾ to 2½ hours, according to the quantity of material required to be extracted. A weighed amount of pure rotenone is added to all extracted resins so as to bring the content up to at least 40 per cent; 1 gram is added even if the content is already up to or above 40 per cent.

Rotenone is separated as its carbon tetrachloride complex. The purity of this complex is accurately determined by stirring with alcohol. The mean value is about 94 per cent. with a variation between 91 and 96 per cent. The purity of the rotenone after the alcohol recovery treatment averages 99.2 per cent. Purity of the complex can be determined by optical rotation and gives on the average results high by 2.6 per cent. For routine estimations it is sufficiently accurate in most cases to take the complex as being 94 per cent pure. The addition of 5 per cent by weight of decolorizing charcoal to derris, or 10 per cent to *Mundulea* samples, gives better colored and purer extracts. R. R. Le G. Worsley, *J. Soc. Chem. Ind.*, **55**, 349-57T (1936).

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Drug Dinner March 4

The 12th annual Drug, Chemical and Allied Trades Banquet will be held this year, March 4, at the Hotel Waldorf-Astoria. As usual a reception will precede the dinner. The speaker for the dinner is yet to be announced.

Insect and Germ Control in

HEALTH PROTECTION

By Dr. William C. Hunsicker*

Director, Philadelphia Dept. of Public Health

A GREAT satisfaction may be derived in knowing that business and science have been linked to enable the public to obtain the benefit of research in the curbing of disease caused by pathogenic germs, and by insects. Of course, it is well known that there are micro-organisms in the vegetable kingdom which are beneficial as well as harmful to mankind, and that there are insects which play a very vulnerable part in the growing beauties and products of earth itself.

There is, however, a large group of bacteria, using the word to include all forms of micro-organisms, which invade the human body and are spread from person to person by contact or contamination of the foods which we eat. Then again, there are insects which act as carriers of bacteria and parasites, and which may produce diseases of the human being by direct contamination of the food which we eat, by inoculation through their bites or by penetrating directly through the exposed skin.

By far the greatest problem of the public health official is the destruction of pathogenic bacteria which cause definitely known diseases and the elimination of insects which have in past centuries spread disease throughout the civilized and uncivilized world, causing destruction of populations in the millions and in other instances rendering them physically unfit by disease.

I hope that every one here* has read the book entitled—"Microbe Hunters" by Paul deKruif. He speaks of Anthony Leeuwenhoek of Delft in Holland as the first of the microbe hunters more than two hundred and fifty years ago. With his home-made microscope, he described the first of the living organisms which today play so great a part in public health and which are of such great concern to you the manufacturers of disinfectants and insecticides. It was not until the latter part of the 19th century that the great discoveries in bacteriology were made. There stand out in history the names of Louis Pasteur in connection with anthrax and rabies, —Robert Koch in connection with tuberculosis,—Roux and Behring in connection with diphtheria,—Metchnikoff who described the germicidal value of blood,—Theobald Smith, in his discovery of fever caused by ticks, —Ross and Grassi in connection with malaria and the mosquito,—Walter Reed who discovered that malaria must have a cycle through the mosquito in order to transmit the disease to man,—and Bruce in connection with sleeping sickness and the tse-tse fly. We should all be familiar with the name of Paul Ehrlich who was among the first to "disinfect" the blood of human beings against syphilis. It was during the early period of Pasteur's pronouncements that Lord Lister, a famous English surgeon, introduced the use of carbolic acid spray in the operating room. I note from your program that the phenol coefficient which has been used for many years as a germicidal rating of chemicals is now being questioned.

It is well known that disinfectants, germicides and insecticides have been responsible for the health safety of mankind today. No nation, no state nor any community would be safe today, free from the dangers of epidemic and pandemic diseases, unless it had taken into serious consideration sanitary engineering problems for the purification of its water supply, disposal of sewage and sanitary disposal of garbage and refuse, primarily with the viewpoint of protecting public health.

Chemicals are used in processes of sanitation. The water supply of many communities must be not only filtered but treated by chlorine. Every public swimming pool uses germicides for the protection of its water. The milk supply must depend upon disinfection by heat, commonly known as pasteurization. The transportation and safe keeping of perishable food supplies would not be possible without refrigeration,—a process of inhibiting the growth of putrefying organisms by means of cold. The whole of the canning industry is dependent upon the germicidal action of heat. The preservation of foods by sugar, by salt and by smoking all have their wide application in the broad sense of combatting organisms responsible for the spoiling of food.

It is well known that the fighting armies and the navies of the world would not exist without the preservation of the water supply and food supply necessary for the very sustenance of troops. I can well imagine the Italian troops in the recent conquest of Ethiopia had to be supplied with chemically treated water for drinking purposes.

Every first-aid kit for use of military purposes or for industrial or household use is supplied with some form of germicide or antiseptic for the first-aid treatment of wounds. Every hospital is supplied with antiseptics and germicides for use by surgeons in the preparation of their

* Address before 23rd annual meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Philadelphia, Dec. 1936.

hands and in the preparation of the site of operation.

Most persons in their daily routine are using chemicals to rid their bodies of infectious germs. Soap itself is a germicide. Every health officer knows that soiled hands are responsible for the spread of many diseases. The educational principles of cleanliness as carried out in the public and private schools, advocate the free use of soap and water for cleansing purposes. Practically every home is equipped with tooth brushes, tooth paste or powder. The practice of clean teeth and a clean mouth has as its purpose not the complete elimination of organisms in the mouth, but their reduction in number to a state of tolerance. Housewives have learned the importance of the use of germicides for the laundry of the family clothing in the form of washing powders or soaps which not only cleanse the clothing but deodorize them.

The health department has recently discontinued the use of fumigation following the various contagious disease because of the prevailing belief that the infectious germs and viruses have lost their virulence shortly after they leave the human body. In cases of typhoid fever the stools are treated by a germicide before they are disposed of. The prevailing method of disinfecting consists of thorough cleansing of the sick room, airing of the bed clothing and wiping down the woodwork and introducing as much sunshine as possible. I could go on and on speaking of the very many applications of chemicals which are used for protection against disease. It should suffice to say that a great share of preventive medicine has as its basis the use of antiseptics and germicides.

Insecticides play no less a part in the protection of public health than germicides. Yellow fever caused by the bite of the infected mosquito would have decimated most of the tropical and temperate zones were it not for the sanitary engineering problems involved in the elemination of the mosquito. In cases where drainage is insufficient or impractical to destroy the eggs and larvae of mosquitoes, the use of oils play a great part in destroying this disease carrying insect. The same holds true for malaria. It is believed that the completion of the Panama Canal would never have been accomplished had it not been for the use of measures which were destructive to the mosquito.

One of the most destructive of all disease known to man is plague. It is carried by fleas through infected rats to human beings. A description of bubonic plague graphically described in Boccaccio's Decameron devastated Europe in the 14th century to such an extent that one-fourth of the population was wiped out. Plague is still in existence in many parts of the world. The destruction of the rat by various means, including the use of poisons, enables at the same time the destruction of the disease carrying flea.

During the World War typhus fever was communicated by the body louse. There are still vivid in the memory of those who served in the service, the many delousing stations situated throughout the warring countries. Insecticides played a very important part in the control of diseases during the World War. The house fly and stable fly may be in some instances carriers of infection and of gastro-intestinal upsets caused by the contamination of foods. The sanitation of every city today is in a large measure judged by the prevalence of flies and mosquitoes during the heated term.

There is hardly need for emphasis of the fact that the use of insecticides serve an admirable purpose in ridding the home of the common summer insects. Although the common household roach and bedbug have been accused of carrying disease, they are not serious offenders in this respect, but their presence in homes, restaurants, hotels and apartments are indicative of insanitary surroundings. The health department is seriously interested in the use of disinfectants and insecticides because they play a very important part in the prevention of disease and the maintenance of good health.

Theatre Spray

One method for making an atmospheric spray which can be further diluted, is to combine a suitable essential oil mixture with a soft soap such as ammonium oleate or triethanolamine oleate. This may be made *in situ* or purchased separately. A second method is to add the essential oil mixture to sulfonated castor oil of good quality. The more highly sulfonated the oil, the less will be needed in order to obtain complete solubility in water. Both of these methods give cloudy solutions in water, although by adjusting the perfume compound so that it contains only terpeneless oils and the more soluble synthetics, a dilution which is almost clear is obtained.

The proportion of oil to vehicle has to be determined by experiment, as it depends on the solubility of the perfume compound and the purity of the vehicle. One part of ordinary perfume essence to 10 parts of sulfonated oil is quite common, while one part of specially prepared essence to 4 parts of a highly sulfonated oil can be successfully used. A soapy emulsion using triethanolamine oleate, may be made from the following formula as a basis:

Essential oil (pine, etc.)	182 parts
Oleic acid	12 parts
Triethanolamine	6 parts
Water	200 parts

Alternately the perfume may be mixed with the triethanolamine previously prepared, and the water worked in. *Soap, Perfumery and cosmetics* **1936,** 820.

Egyptian Pyrethrum

Powdered pyrethrum flowers grown experimentally in various Egyptian localities contained 0.316-0.490 per cent of pyrethrin I. The content of pyrethrin I at different stages of flower development was for small bud 0.123, closed flower showing no petals 0.208, closed flower showing petals 0.330, half-open flower 0.349 and fully open flower 0.420 per cent. M. Shafid and A. H. Hindi. Ministry Agr. Egypt, Tech. Sci. Service Bull. **166,** 24 pp. (1936).

1937 — WHAT ?

By W. G. Griesemer*
Black Flag Company

ONCE again "the journeying of the days has brought us to the beginning and the end." If we, as an Association, come to the beginning of 1937 with a virtuous effort to do better than in 1936, we can find many ways to achieve this goal. If we read wisely the teachings of the years, we will profit by them. In looking back over the past, we will find them full of significance. We have learned something from our successes and failures and we enter the future without fear and full of confidence.

As it has always been since the beginning of time, despite the vicissitudes of life, the inspiration has always been the same. The inextinguishable impulse of mankind to believe that tomorrow will be better than today; to shake off the memories of the mistakes and disappointments of the past and greet the future with high hope. The retrospect should give us a future bright with promise.

If the New Year means anything more than four figures in a row, it reflects an onward march and forward look; it means that we make stepping stones of our failures and refuse to be harassed by the mistakes of perturbing yesterdays. For, 1936 is nothing but yesterdays and the future is nothing but tomorrows. What shall fill each of the tomorrows is for us, with dauntless will, to determine, remembering that "Life is just a little holding, lent to do a mighty labor."

The master of yesterday is memory; the regent of today is reason; the ruler of tomorrow is faith. The poet was right, when he penned those lines, "Time goes, you say. Ah no. Alas, Time stays, we go."

The challenge is, as we pass through the mystic gates of New Year, will "We go"; thereby making our fondest hopes of today become our richest experiences of tomorrow, because in the heart of today, lies the world of tomorrow.

In what mood then, as an Association*, do we take leave of the past and welcome the future. Certainly not with complacency but with the full confidence that we are going to make tomorrow better than today. The relation of abundance to waste involves some of the deepest philosophy of life. Every fragment of the world's riches should be most carefully guarded and garnered. One of the most prolific sources of wealth in these recent years has been the utilization of waste products; inventive genius has discovered mines of wealth in the refuse at the back door.

The keen eye of man saw the mass of waste at the side of the silk factory, and all the plush of the world has been taken from that offensive, unattractive, useless material. It it supreme wisdom to know how to transform the waste of the world into riches of the world. At the side of every man is diamond mines of time, talent and strength. The sin is in the failure to appreciate these and in permitting them to be lost. Life's waste is one of the chief factors in life's poverty. He is most guilty and comes to greatest penury who does not gather up these jewels with extremest care.

Time is one of our most valuable possessions, and we are held responsible for its honest use. Time is our patrimony, received to be used, and to bring the best possible returns. Dividends are demanded from our investment of it. In our dealings with time is the possibility of our highest integrity or our deepest dishonesty. We have made divisions in time, and thus wrought injury upon its value. Life is a mosaic, and each part is to be fashioned and perfected by itself before it fits into the beautiful pattern.

Among the applicants visiting the "Intelligence Office," which Hawthorne describes so vividly, there is an aged gentleman who makes every motion according to an unyielding purpose. He says, boldly and repeatedly, that he is in search of tomorrow. "I have spent my life in pursuit of it, being assured that tomorrow has some vast benefit or other in store for me. But now I am getting a little in years and must make haste, for unless I overtake tomorrow soon, I begin to be afraid it will escape me. But the answer comes back from the man who gives information and carries a certain pathos with it to the discouraged heart of the old man. This fugitive tomorrow, my venerable friend, is a stray child of time, and is flying from his father into the region of the infinite. Continue your pursuit and you will doubtless come up with him, but as to the earthly gifts which you expect, he has scattered them all among a throng of yesterdays.

The value which an Association places upon the moments of today is the author of all good in every tomorrow.

Michael Faraday, when a poor apprentice, valued every moment, and said that time was all he asked. In a letter to a friend, this bottle washer in the chemical laboratory wrote: "Time is all I require. Oh, that I could purchase at a cheap rate some of our modern gents' spare hours—nay days."

There can be no thrift or ultimate success where hour is not fastened to hour and moment woven into moment in the great pattern of life.

* Address before 23rd annual meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Philadelphia, Dec. 1936.

These jewelled particles of time are what the single blade of grass is to the lawn, or the leaf to the formation and emerald glory to the tree, what the grain of sand is to the mountain, what the sparkling snow flake is to the white-robed hillside. Its value depends largely upon its association and its vital relation to the perfected whole.

In any department of life, he who will resolve, time is precious, and be true to his conviction, will be crowned king. Every bridge, factory, railroad and successful enterprise, or work of art, was built out of time. Time is just as much of a mine, as the gold mine.

Most men waste it, and then grieve over their loss at the other end of the line. Death is the revealer of its real value. Time is not only money, but it is everything. Lose that, and you have lost all. Waste it, and you are throwing life itself away. Most men who have made a failure of life and are clinging to the wreckage, can look back and see hours of golden opportunity lost by their own blindness and negligence. There are test hours which lead on to triumph or failure. Columbus had his supreme moment. What a calamity if he had wasted it! Lincoln held his watch when destiny itself was in the tick.

The battles of men and nations have often hung in the balance of a fraction of time. Everything can be bought with the golden coin of time. It is current everywhere, and never fluctuates in value. Every man has his chance. But with open eye and steady nerve he must grasp it as he passes. There is a tide in the affairs of men, which, taken at its flood, leads on to fortune, but the fortune lies in the taking as much as in the tide.

Seize, Seize the hour
Ere it slips from you; seldom
comes the moment
In life which is ended sublime
and mighty.

Critical and strategic moments do not flash their brilliancy in every light, but the open-eyed hero will always detect their real value and claim it as his own. The waste of time is life's greatest blunder and most destructive force. In the fragments is an abundance of opportunity. Oh! how ruinous waste has shattered the hopes and ambitions of men! It has been the author of despair and even death to the best in life. The greatest discovery of any association is the value of time.

One note is clear in our present day life. A mighty contest is on to defeat Father Time. Each one of us is born with a given number of years, and days to his credit. The fateful span cannot be increased by a single minute, except by getting more done in the given span. That way only can life be lengthened. Practically everything that is going on today is motivated by this urge, and success has perched on the banners of those who have devised ways of making us live longer within our allotted time. What is mass production but a battle against Time. Mass selling is a short cut over the peddler and the drummer age. Installment buying defeats Time by giving us those things we desire earlier than we would otherwise have them.

The question of the day is, "How long will it take?" An earlier generation asked, "How far is it?" Faster and faster grows the pace. Whole cities made over in a few decades, skyscrapers a matter of months; the new is made a public servant before the old is outworn. The crucial problem today is movement in all its forms. If tomorrow you can move twice the speed you can today, you will have twice the time at your disposal to work in.

It is not gold standards which provides wealth; it is work, and if tomorrow you have twice as much time to work in as you have today, your wealth will be doubled. The big job of today is to beat "Father Time." Our grandfathers thought in terms of hours, our fathers spoke in terms of minutes; our generation must gear ourselves up to act in terms of split-seconds.

As we enter the New Year, the challenge is what are we going to do with our time and endowments as an Association. Are we going to utilize every effort to make better products, and work together for the common interest of the Industry, or will we create a lack of confidence in the minds of the customers or consumers we service, when we are not supplying them with products that are not comparable to the best.

Our course, as an Industry, will be charted as to what each member will contribute, if we are to do a better job in 1937 than we did in 1936. Will each of you give better than your past previous best to this ideal? Who will accept the challenge?

◆

Rotenone Extraction

Toxins for the manufacture of insecticides can be extracted from roots containing rotenone by digesting the roots which have been previously broken up, in alcohol acidulated with chemically pure sulfuric acid. The mixture is then filtered. The filtrate contains the rotenone and other toxins of an insecticidal value originally present in the root. Harold G. Ward. Canadian Patent No. 362,903.

◆

Toxicity of Soaps

Alkali and alkaloidal soaps were tested toxicologically on the Canadian aphid. Soaps prepared from the delephine blubber acids, and from the acids of flaxseed or cottonseed oil were more toxic than soaps prepared from the acids of castor oil and rosin and from the naphthene acids. The toxicity of the alkali soaps was in the decreasing order sodium, potassium, ammonium. Nicotine and anabasine "soaps" were 6 times more toxic than potassium soaps and 9-10 times more toxic than ammonium soaps. In low concentrations the anabasine soaps were somewhat more toxic than the nicotine soaps. The sulfates of the alkaloids were about 8 times less toxic than the alkaloid soaps of the same alkaloid content. The magnitude and change in surface tension and viscosity with change in concentration of the soap solutions could not be correlated with the changes in toxicity. A. D. Kraiter. *Plant Protection* (U.S.S.R.) **1935,** No. 7, 14-28.

Culturing Staph. Aureus

By B. G. Philbrick*

Skinner & Sherman

STAPH. AUREUS as the recognized organism for the standardization or testing of the strength of antiseptic preparations has interest for members of this association* engaged in manufacturing and selling antiseptics and disinfectants. The use of this organism as a test organism antedated the publication of Circular 198 of the Food & Drug Administration, but when the official methods in that circular prescribed the use of the organism and set it up as a standard of phenol resistance, Staph. aureus became of much more importance in routine tests.

Inasmuch as the standard of resistance of the organism was set within fixed narrow limits manufacturers and commercial testing laboratories looked to the Food & Drug Administration to supply a culture which would possess the proper resistance and as a result F. D. A. culture No. 209 is now quite generally used.

It should be understood that its general use is not due to any legal requirement since one is free to use any other strain as the test organism so long as it has the prescribed resistance to phenol.

As the use of Staph. aureus became common its growth characteristics were of necessity more carefully noted and it was generally observed that the resistance of the organisms all supplied from one source and grown in a standard broth showed variations difficult to explain. At first the individual laboratory or bacteriologist was inclined to question his results, to check back over his media, incubator temperature, etc., and became quite exercised over the irregularities of his results, only to find that his culture for no reason or other, was again normal. On the other hand, perhaps giving up in despair or realizing that the control work could not be held up until he found the answer, he sent to Washington for another culture, and put off his question of "Why?" under the pressure of routine work. If however as was sometimes the case, he found that the new culture when grown in his laboratory, under conditions as nearly the same, as possibly could be obtained by strict adherence to all the details of culture still did not have the proper resistance, the question of "Why?" again was raised.

This difference in the resistance of Staph. aureus when grown under normal standard conditions in the same laboratory and in different laboratories has of late become a more general subject of discussion among bacteriologists, as they have found that their difficulty in maintaining a Staph. aureus culture of the proper resistance is shared in general by all. Whether the continued culturing of the particular strain No. 209 has brought out certain characteristics or developed certain to a more marked degree is a question, but it is certain that in the last two years more complaints of trouble have been heard, and in certain cases where but little trouble has been experienced in the past, there is now much grief.

With the above picture in mind your committees on Antiseptics and on the Methods of Testing Disinfectants decided to make a start to find out what factors influenced the resistance of the organism as cultured in our laboratories. Acting on the common knowledge that the characteristics of an organism are affected profoundly by the medium upon which it is grown, it was decided that it might be well to determine if the variations in the culture broth were responsible for the variations in resistance of the organism.

The F. D. A. broth contains distilled water, salt, Armour's Special peptone, and Lemco beef extract, of which the peptone and beef extract are the two possible variables. The Armour's peptone comes from a selected lot and of itself should not vary while the beef extract is conceivably subject to wide variations. Since, however, the peptone was selected with E. typhi in mind rather than Staph. aureus it was considered worthwhile to study the effect of the substitution of other commercial peptones in the F. D. A. broth.

In the experiments along this line the organism was first cultivated on F. D. A. agar in which the same peptone as was to be used in the broth had been substituted for Armours. After 30 days the organism was tested against phenol at seven day intervals for four weeks along with the standard culture grown with Armour's peptone with the use of 37° C. as the temperature of medication. The peptones tested in this manner were Bacto, Witte, and Allen & Hanbury's. In all cases the cultures grown on the media made with Armour's peptone showed the greatest resistance or the strongest organism, that is the growth came up to the standard resistance earlier and remained of standard strength over a longer period. The charts of growth were not uniform among the different laboratories but all showed that Armour's gave the most resistant culture. Witte's peptone in all cases made the poorest showing. One laboratory likewise made these tests at the temperature of 20° C. with the same general results, and the same is reported as true with Bacto-Tryptone agar and broth, and Neopeptone agar and broth.

The F. D. A. formula calls for

(*Turn to Page* 109)

* Report, Committee on Testing Disinfectants, 23rd annual meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Philadelphia, Dec., 1936.

1937

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The Trend in SANITARY SPECIALTIES

By Clarence L. Weirich*
C. B. Dolge Company

EVERY radio listener is familiar with the type of program for the moment so popular, in which the announcer with a portable microphone takes up his stand in some hotel lobby or other prominent place and drags casual passersby as willing victims to the microphone. The respondent when questioned, bravely gives his name and place of residence, hesitates a little perhaps and requires prodding before describing his business or station in life and then when the trick questions come along, flounders about until the conversation becomes a volley of questions and gags by the commentator with an occasional gurgle by the victim. A similar technic was used in preparing these notes but with quite some different results. When buttonholed, the respondents were quite willing to talk and the answers flowed freely but they hesitated at accepting any public credit for their opinions, stubbornly insisting upon a discreet anonymity. The comments requested were on technical developments, on legislative or regulatory matters applying strictly to the field of sanitary specialties and on changes, if any, taking place in the business. We have summarized the answers in the following paragraphs, simply editing them and so avoiding any implication of authorship. The comments are offered solely as a record of what is being talked about in this field.

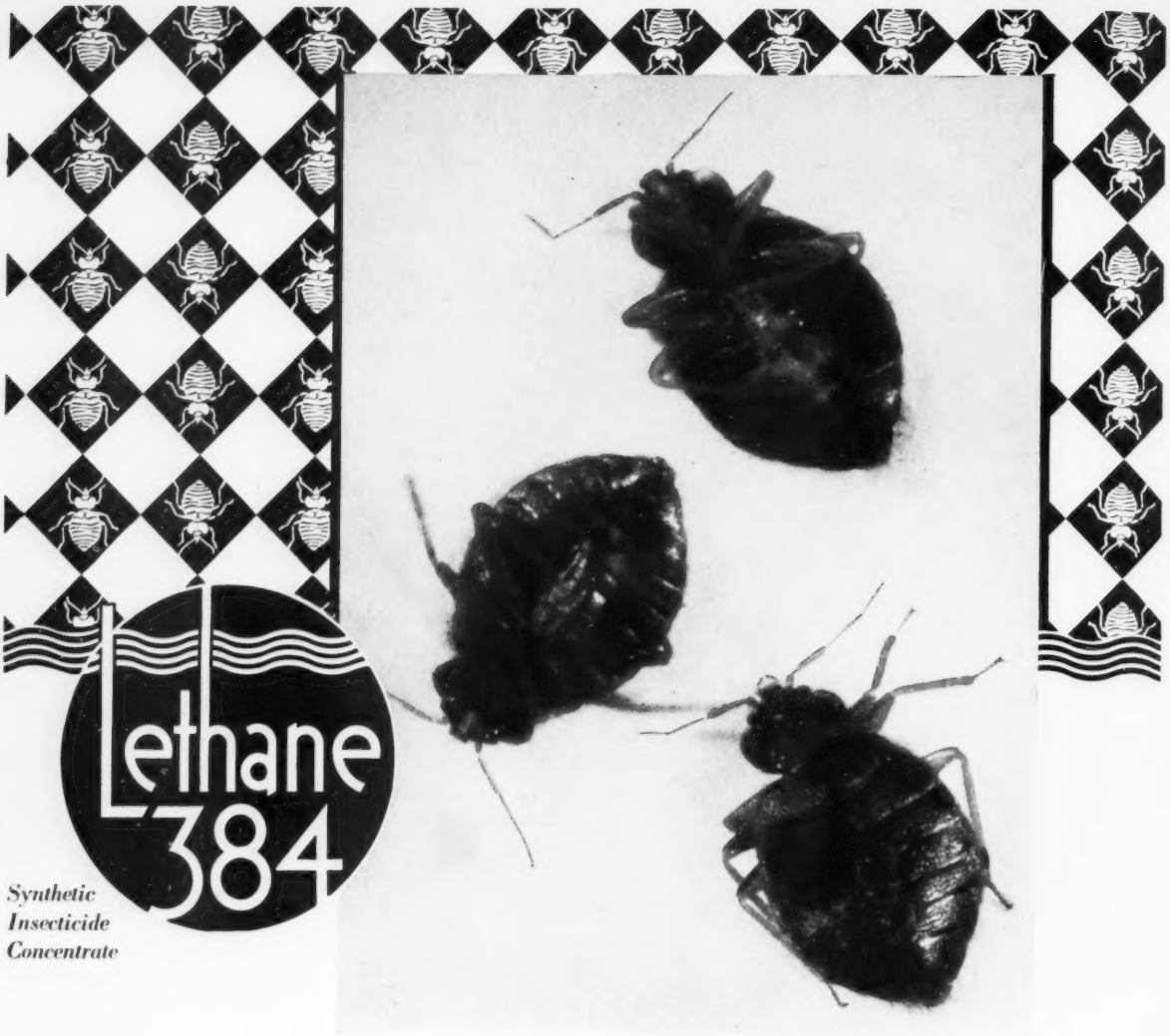
The efforts to standardize pyrethrum extracts received the most commendation, when technical improvements were mentioned, though the hope persists that a simple satisfactory chemical method may yet be developed. Also the long anticipated offering of lighter colored pyrethrum concentrate to the trade has been most welcome. While nearly all pyrethrum insecticides have carried non-staining legends on their labels, they have not always been so in fact. The stain, it is true, bleaches easily in the sunlight but nevertheless it has been the cause of unfavorable comments from customers. Undoubtedly, the lighter colored insecticides will be most appreciated in the retail trade. Immediate steps, however, should be taken to prove beyond doubt the stability of the extracts so prepared.

The concerns engaged in formulating disinfectants have for the most part found considerable discouragement in the use of the so-called high coefficient materials which have been offered them. Opinions seem to be pretty general that many of the materials offered, have been merchandised without adequate and proper experimental background, with the result that many manufacturers have spent quite a little money testing such materials only to find out deficiencies of which they should have been told beforehand by their suppliers. It is a sad commentary that one material offered by a large and reputable organization and stated to be an effective killing agent at 1:60000 was found under test not to kill in 5 minutes at 1:2000. It is to be hoped that future offerings of high coefficient materials to the trade will be made with a competent explanation of their solubility, reactions and their deficiencies under the usual trade formulations. The disappointment encountered in the handling of these materials will undoubtedly react against future offerings and slow up the acceptance by the trade of materials which should be most useful and which ultimately will dominate the specialty disinfectant business.

The word "disinfectant" seems to have a magical effect on some buyers. Ordinary alkaline cleaners become more readily saleable when offered with claims for disinfectant value. Some buyers feel that they must have disinfection with their cleaning, though it must not be apparent to the nose, taste or pocketbook. The temptation to meet the customer more than half way and to make these claims still overcomes many small jobbers and repackers who cannot be readily reached by limited facilities of the Department of Agriculture.

The manufacturer and jobber of sanitary specialties handles a very large line of materials, nearly all of which come within the purview of one or the other of the regulatory Acts. The result of this is that there is quite a good deal of purely technical mislabeling. Since most of the sanitary specialties materials are sold direct to the consumer, Inspectors of the Department of Agriculture encounter some difficulty in obtaining samples. The result of this has been that the Department has adopted a policy which in some quarters has caused resentment. The Inspector appears at the office of a concern, shows his credentials and asks to look at the sales register. The fact that he is an Inspector from the Department of Agriculture leads the persons to whom he is talking (usually a bookkeeper or someone connected with the office and not familiar with regulatory

* Report, Chairman, Sanitary Specialties Committee, 23rd annual meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Philadelphia, Dec. 1936.



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matters) to believe that he has the right to access to the books. On inspecting the books, he takes the names of the consignees of certain of the products and is enabled to go to those consignees and so secure samples of the products which he might not otherwise be able to obtain.

In following this procedure, the Inspector is asking a concern to set the ground work for a libel proceedings against itself. When such Inspector does come into an office he should advise the concern in question that while he would like to look at the books, he actually has no legal right to insist upon it and the concern may refuse such inspection without creating any prejudice against it in the Department.

The Department really does need a quick and economical means of sampling the labels of this trade. That is their problem and there seems to be no inexpensive solution. The grossest violators are the very small concerns and the most difficult to reach.

The Caustic Poison Act because it has reached a more extended field than previously covered by Government regulation has been the cause of a lot of trouble to the Sanitary specialties manufacturers. A frequent cause of returned merchandise has been the fact that the word "Poison" is on the label of a product that had been used for years for household purposes without such designation. For example, every manufacturer of "drain pipe solvent" has had the experience of having customers return merchandise stating that they would not use the material in their sink or kitchen because it was marked "Poison". They simply would not expose eating utensils to the possibility of contamination by such materials.

There is some justification for this attitude. To the lay mind, the word "Poison" means something which in very small amount will cause death when swallowed, and in fact, this should be the technical definition of "Poison" because materials which are regarded as innocuous, if taken internally in large quantities, may very well cause death. (As an example, an eminent Italian physiologist, Benito Mussolini has demonstrated the lethal effects of castor oil.) It is to be hoped that at some time, the Federal officials will attempt to define poisons after the manner of some States, namely, establishing as a poison a material which is lethal under a definite small dosage.

Such materials as sodium-hydroxide and sodium hypochlorite really should not be labeled "Poison." A more descriptive word or phrase should be prominently placed on the label which will indicate more accurately the physiological effect of that material. For example, the words "Dangerous corrosive. Do not permit this material to get on skin or clothes," followed by antidote, etc., would seem to cover such cases more adequately. The wider we distribute the word "Poison" on our labels less likely is any attention going to be paid to the very highly poisonous and immediately fatal substances like nicotine and potassium cyanide. All of this has been said many many times since the Act was passed. The fact that it is still being said demonstrates the validity of the objection. Its very vitality shows its validity.

The Department in its interpretation of the Caustic Poison Act has imputed to the word "household" a definition not commonly used in practice. Such extension of the definition operates against acceptance of the spirit of the law. For example, the Department has held that the directions for a dairy constitute "household" use.

Most readers of the Act believe that the Act was intended to control the sale of these materials in the retail store. The Department has extended the interpretation of the Act to much larger packages in several cases. The acquiescence of the manufacturer to the request that the label be changed does not always mean that he is fully convinced of the correctness of the interpretation. It sometimes means that while he feels that he is justified in his own interpretation it is not worthwhile hiring a lawyer and battling out a libel case for the sake of a minor label revision. It would seem as if this Association or some other Agency, would take up some of these disputed interpretations by conference and oppose what seeming reasonable requirements. The interpretation of these Acts in certain details is too one-sided. There is no organized presentation of our industries viewpoint. Many in the industry feel that future legislation should provide means of appeal from strictly departmental interpretations to a board which has some industrial representation.

Whenever in the past, three or four Specialty Manufacturers got together, they would moan about the fact that they had no means of making contact and bringing the clear light of understanding to the very small distributors in the trade; the men who made a few sanitary products in a cellar or in a store then went out and sold them themselves with fabulous claims and at prices not in line with those manufacturers doing a more extensive business. Today the situation is reversed. The average sanitary supply manufacturer has come to realize that the very small distributor is an insignificant competitor. In many cases the worst type of competition now comes from Corporations from whom he buys much of his raw materials.

So many very large concerns operating in basic industries now have specialty divisions that it has become occasion for alarm. Large corporations find an economic justification for the business of selling you raw materials and then selling your customers the finished specialty too. Economists, before they all enlisted in the Government Service, called this "vertical integration." The general idea is that if you operate a sheep ranch you should be in the pants business too or you are not fulfilling your manifest destiny. The very man who calls upon you to sell you spindle oil and kerosene, takes your order in his hand and runs down the road to your best customer and sells him fly spray and floor oil. There is nothing that you can do about it. There is, however, a feeling that the lot of the small manufac-

KOPPERS

KOPPERS is one of the important sources of chemical raw materials such as Tar Acids, Cresol, Phenols, Cresylic Acid, Tar Acid Oils and Neutral Hydrocarbon Oil. But it is much more than that. It builds plants in which many of these materials are produced and refined. It makes roofing and waterproofing materials for the protection of industrial plants, and Tarmac road materials for the paving of plant roads. It mines bituminous coal for fuel and for processing. It produces coke. Koppers is the only manufacturer of Fast's self-aligning Couplings, invaluable in power shaft connections. It builds tanks and does plate work; manufactures gas and water valves and fire hydrants. It produces piston rings of every size for every type of gasoline, Diesel and steam engines, and builds and reconditions lighters, tankers and ocean vessels. It produces creosote and applies preservative treatments to lumber, piling, posts, etc.

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turer should not be made any harder than it is by the Companies from which he of necessity purchases raw materials. If they are going to invade the direct-to-consumers specialty field, they should adhere to the customs and prices current in the trade. The really justifiable complaint lies in the fact that this is not usually done.

The long mark-up which many specialties carry has made that field seem so attractive, that large companies have gone to ridiculous lengths to get into a field where often they do not have the justification of producing raw materials for the manufacturer of the item. For example, the largest tire company in the world sells cleaning fluid in a small patented dispensing bottle. They don't make the distillate. They don't own the patents on the bottle. They will even put it up under your own label on an order as small as a gross. That's a picayune business for a great and powerful company. One of the Standard Oil Companies sells direct to schools and institutions a water wax, composed of carnauba wax and emulsifier. They have no special position in the wax market, and they don't make the emulsifier they use from petroleum. Incidents like these make some manufacturers feel that their field of activity will soon be much narrowed and look with a jaundiced eye on the future. However, there is really a brighter side to the picture. It means that there will be decided advances in the number and quality of specialties available and that means a wider field for the specialty manufacturer and a sounder basis for his business. Experience, too, has shown that the direct-to-consumer sale of specialties cannot be handled with the same organization accustomed to a jobber-dealer setup. It takes time to penetrate this field not money alone. The years, too, have demonstrated that selling bulk or semi-finished goods to the sanitary specialty field for repacking is a safer way of securing quick distribution and maintaining a proper retail price level, than by doing it alone in this field. In every case where the large manufacturer has seriously gone into the field, unlooked for obstacles and expenses have cropped up and the price level for the product has dropped below a desirable figure. In a world of tumbling prices, during the past few years, the sanitary specialty manufacturers have maintained better prices and kept their heads better than corporations which have to a large extent dominated the economic policies of the country. The sanitary specialty manufacturers can hold their heads up secure in the fact that they have established for themselves an unassailable place in the manufacture and distribution of certain types of merchandise and that they can hold this position securely against any fair competition that can be offered.

Culturing Staph. Aureus

(*From Page* 103)

the use of Lemco Beef Extract. This extract is not standardized and there is no guarantee that successive lots are the same, and the observations of the members of the committee would indicate that they are not. One member reports that he has adopted the use of Lab-Lemco, a standardized product manufactured by the same company, and has noticed that there is less variation in the resistance of his standard culture. In connection with this report another member has run a comparative series of tests using Lemco, Lab-Lemco, and Bacto Beef Extracts in the F. D. A. formula, and reports that in this comparatively short series there was no difference in resistance of growth. On general principles, however, it would seem that since there is a standardized Lemco (Lab-Lemco) it should be adopted into the official F. D. A. formula.

Mr. Brewer reporting for the Food & Drug Administration which has collaborated with us in this study states that their tests have been giving the same general results. The Witte and Allen & Hanbury's product gave decidedly poorer results than Bacto and Armours, and of these two Armour's was the superior. Difco Proteose peptone and a mixture of 2/3 Bacto peptone and 1/3 Proteose were tried out. The mixture of the two peptones gave a slight improvement over Bacto alone though not equal to Armours, while Proteose peptone alone was quite inferior. These comparisons are all based on the maintenance of resistance only.

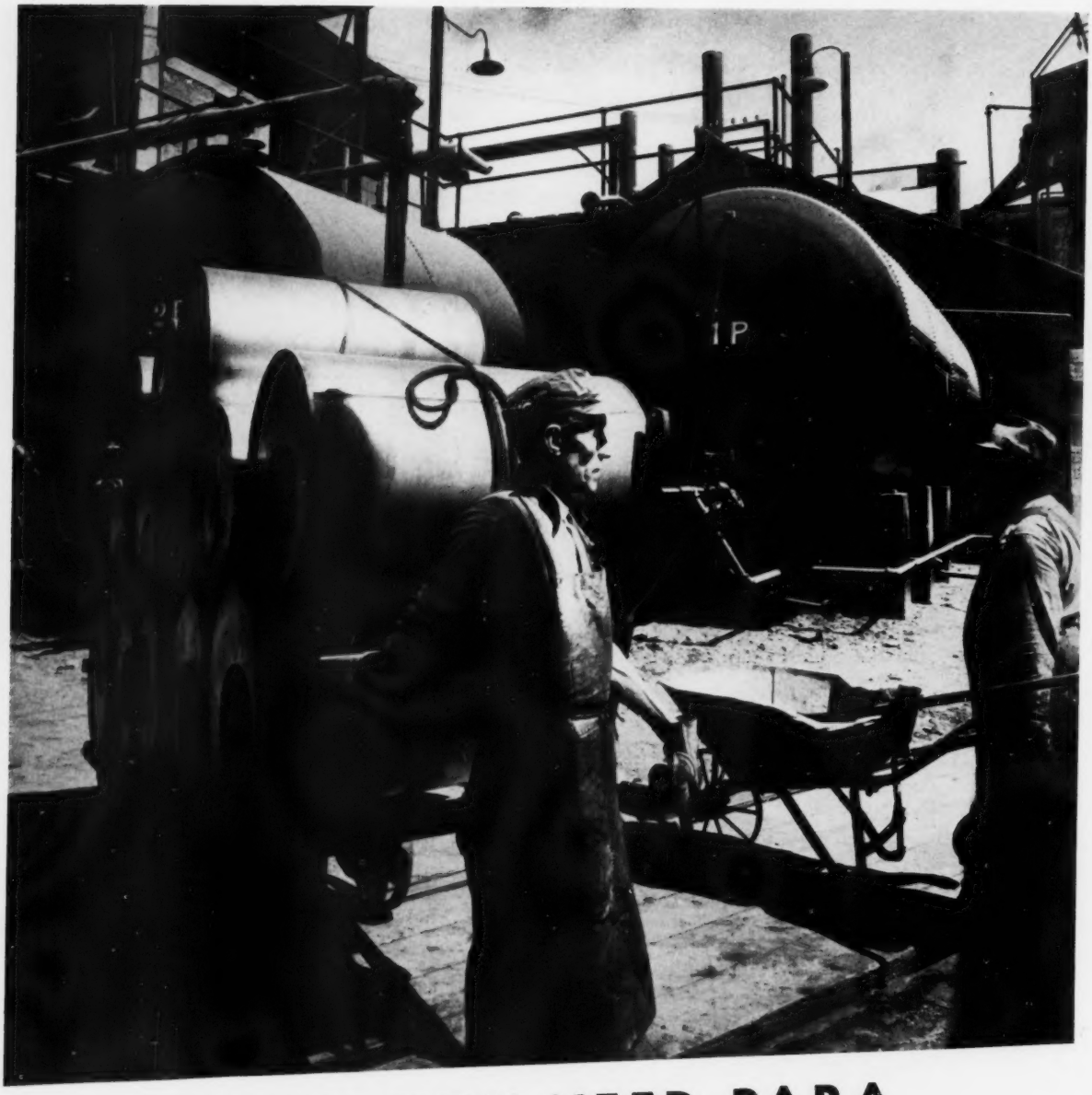
While it may well be that the composition of the broth has a greater influence upon the resistance of the organism than is apparent, a more promising field of investigation would seem to have been opened up by an independent study made in the laboratory of one of our members, Dr. Pease. A culture of No. 209 was repeatedly plated on F. D. A. agar, Tryptone agar, and Neopeptone agar, and separated into an orange and a white culture, aureus and albus. These cultures have remained stable to color since isolation on F. D. A. media—8 months. The orange culture is more resistant to phenol than the white but apparently less resistant than the original mother culture.* The resistance is greater in F. D. A. broth than in either Tryptone or Neopeptone extract broth.

A similar separation of the No. 209 strain has been made by another bacteriologist to whom the culture was submitted thus giving an independent confirmation of the make-up of that culture.

A very suggestive paper by O'Meara & Macsween recently appeared in the Journal of Pathology & Bacteriology. This article deals with the effect of small amounts of iron and copper upon the growth of staphylococcus, and states that these metals are introduced through the peptones which seem to vary in their metallic content in different brands and in different batches of the same brand. Although we in this country use a special lot selected for its suitability, it might be well for laboratory workers to check up on this point.

* In a later communication Dr. Pease states that the isolated orange culture is generally even more resistant than the original mother culture, the series reported above being exceptional in producing a mother culture.

National Can Co., New York, has recently taken over the business of Pittsburgh Can Co., Pittsburgh, manufacturers of steel pails and kegs for over twenty-five years.



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FEDERAL LEGISLATION

The Robinson-Patman Act and the Food and Drug Legislative Situation Discussed

By James F. Hoge*
Rogers, Ramsey & Hoge

THE Robinson-Patman Act enacted in the last session of Congress and signed by the President on June 19th, ostensibly was a completed job. Actually, it was not. The law is woefully defective in its technical composition. It is full of complications and conflicting implications. And out of both, there is peril for foe and friend alike.

Now, notwithstanding the imperfections of this law, there is a movement for enactment in the states of laws modelled uopn the federal statute. There will be perhaps 42 state legislatures in session this year, and certain trade organizations have already signified their intention to press for so-called "baby" Robinson-Patman Acts.

In addition to that, Congressman Patman has promised that he will introduce a federal statute making it unlawful for a manufacturer or his affiliate to engage in the retail business. He will accomplish that by making it unlawful for a manufacturer or his affiliate to ship in interstate commerce any goods manufactured for sale by himself or his affiliate at retail.

Now, would it not be more sensible to perfect, or at least to correct, the existing statute before proposing new laws in either the federal or the state legislatures? This law affects practically every industry in the country. Confusion and uncertainty respecting its application are nationwide. During its passage through Congress, it received meager, if any, consideration from a national standpoint. It was promoted as an anti-chainstore bill. It received its principal agitation from one trade,—the wholesale grocery trade, and later, considerable help from the retail druggists.

Congress may have assumed that what evils existed in the grocery trade existed in all others, and that what was good for the grocery trade would be good for all others. The application of this Act, however, during the last five months to all the ramifications of American business on a national scale has indicated that the bill advanced on a false assumption. Now, unless that assumption is to be indulged further, no one industry can propose amendments to this law which adequately comprehend the problems of all others. And in the absence of any unity of action looking toward amendment, the amendments which undoubtedly will come may, in the event of their adoption, complicate the situation still further. A multitude of amendments for clarifying or exempting the Act's application to particular situations in particular industries might very well end in a hodgepodge of inconsistent and conflicting amendments. And the result would be a law more difficult of comprehension, or a law ineffective and unenforceable.

This law should be amended. No one can dispute that seriously whether he is friend or foe. It was advanced in the debates under the plea that all honest people were for it and all dishonest people were against it. In the light of its application, it might now be said that the recognition of the need for amendment is the mark of honesty. But honest people will want to see that amendments are made intelligently and fairly; they will not want to see the idea of the law destroyed by emasculating amendments. Some such amendments doubtless will be proposed. They should be defeated, and whatever is legally and economically sound in this statute should be preserved and strengthened.

The time has come when businessmen as a class must realize that abuses in the economic system must be corrected, if not by themselves then by the government. And it does no violence to the principle of the profit motive to say that if businessmen as a class would be a little less profit-motivated, and a little more patriotic, they could revivify the economic system which has made America great.

Amendments Needed

WE must relax our worship of *status quo*. The negro preacher said, "That's Latin for the hell of a mess we's in!" Widespread abuses in the channels of distribution should be corrected. The purpose of this law to do that should be clarified and fortified. The purpose of Congress to do that should be applauded. And that purpose will be served by amendment. Friends of the Act and of the idea behind it should be in the vanguard of those seeking amendments.

In order that amendments may be constructive, in order to prevent further confusion and complications, amendments should be considered on the basis of their legal soundness and economic merit. Con-

* Address before 23rd annual meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., Philadelphia, Dec. 1936.

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sidering that the law applies to all business, that no one trade or industry can propose amendments that will be sound in their application to all others, the Act should be amended after hearings in which the economic considerations pertaining to all industries are advanced.

For instance, take the quantity discount provision of the law. It has given a great deal of trouble and created confusion respecting it. In my own view, that provision is perhaps the clearest provision, both as to the letter and the philosophy of it. It says that discriminations or differences in price shall be unlawful between two customers unless the difference represents only the differences in the cost of manufacture, sale or delivery resulting from the differing quantities or methods in which you sell to particular customers. I say the letter of the law seems very clear to me, and the philosophy of the law seems clear. It seems to me the Act intends to do, and will do, exactly what that language compels you to do, to have no difference except the difference that you can compute and justify in accountancy on the transactions to particular customers. But it is not clear to me whether that is economically sound. As a lawyer, I can read that part of the law and say, as I am saying, that it is clear; but I stop short of saying to you that it is economically sound. I don't know.

Now the Kraft-Phenix Cheese case before the Federal Trade Commission illustrates this provision of the law. In its selling terms, the spread between the quantities and variance in the discounts between the quantities are not large. Quantity discounts have been allowed in the trade for years. This law outlaws them as heretofore generally allowed, and I raise the question whether this law's effect upon them is economically sound.

Here is an interesting consideration,—the one I mentioned that this law started as an anti-chain store statute. It was started as a weapon against unjustified bigness, or unjustifiable favors to bigness. But that provision is possibly a boomerang for the small retailer. A free deal is a quantity discount. Was it the intention of Congress to outlaw small free deals that are given day in and day out, in daily business, to small retailers?

A Free-Deal Example

THE question of free deals cannot be ignored. You may say that if you get in trouble the damage on one free article with a dozen, at 35c. an article, multiplied by 3 is just $1.05. But that is not the test under this law. The test is what your competitor may be doing. You may be selling a product on a national scale, and giving free deals that you cannot justify under the law. Some large competitor may refrain from doing so. Three or four or five years may go by, and then your competitor says, "I have obeyed the law for five years, and you have disobeyed it. Clerks in retail stores are over-zealous to sell your product because of this little advantage you give. I want damages multiplied by three,—on a national basis."

Now the proper agency to conduct such hearings is a Congressional committee. A committee should hold hearings in which not only the technical composition, but the economic merit, are considered. The existing statute passed in the fashion of "pressure" legislation. Analysis of its effects has come after, rather than before, enactment. The cost in time and money cannot be calculated. I wonder what the printing bill has been for all of the words that have been spoken and written about it? It is asking the very least of Congress now to analyze the effects of what it has done and correct the law in the light of its analysis.

I have said that unless the assumption that what was good for one trade was good for all is to be indulged further, no one group or trade can propose a full set of amendments. And so, as I talk to you, I shall refrain from attempting to propose a full set of amendments. But I will leave with you some illustrations of what seem to me to be obviously needed amendments. I will list a few that may be presented to those who say that there is no need for amendment, and there are some, to my amazement, who have said that.

First, a very simple one, but possibly of far-reaching implications. The Act uses interchangeably the word "customer" and the word "purchaser." Section 2 (a) leads off with the use of the word "purchaser." Subsection (a) uses both words in the same subsection—"customer" and "purchaser." Subsection (d), which refers to paying the dealer for a service, uses the word "customer." Subsection (e), which takes the reverse of it and refers to giving a customer services, uses the word "purchaser." Section 3, which is the criminal section, uses the word "purchaser."

The dictionary does not define these two words as synonymous. I think Congress used them with the intention that they should be synonymous. But that is just what I think. I have no authority in the Act for it, and, as I recall it, I do not have authority in the reports and debates. Now, it is entirely one thing if your obligation is limited to your customers, to whom you sell, and entirely another if your obligation runs to other people who may buy from intermediaries over whom you have no control and with whom sometimes you have no relations. Can it be denied that the Act does need amending in that respect, that, at least, the word Congress intends to use be used each time?

Export Business Included?

SECOND, the Act should be amended to declare whether it is to apply to export commerce or not; or indeed, to declare whether Congress meant for it to apply at one place but not at another. Subsection 2 (a) definitely does not apply to export business. The Act specifically exempts export business. But when you come to subsection (c), which has to do with commissions and brokerages, there is

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no limitation at all, and it applies to foreign business. When you come to (d) and (e), there are no limitations, and when you come over into the criminal section there is no limitation.

For the third amendment, we again have two words. The Act uses two words presumably to accomplish the same result. At one place it says your terms must be "available," and at another place that they must be "accorded." Those two words are not synonymous. Again, you may guess that Congress used the two words without any particular thought about them and meant to accomplish the same result. These two subsections, (d) and (e), must always be read together. They are to catch things coming and going. Under (d) you must not make a payment to a dealer for services rendered by the dealer unless you make a proportionally equal payment available to others. Under (e) you must not give the dealer a service unless you accord it on proportionally equal terms to others. Congress, when it wrote (d), said that the payments must be made "available" to other customers. When it wrote (e), it said that services or facilities should be "accorded." Simple, you say. Yes, but lawsuits frequently hang upon such simple matters and single words.

Then there is the phrase "due allowance," that appears in the quantity discount provision. The Act says that your difference must represent just the due allowance for the difference in the cost to manufacture and sale. Of course, "due allowance" does not mean that you must be mathematically exact, but taking that in connection with its context it does seem to me to mean that you cannot use a sliding scale or average figures in working out your costs; that you must stick to computations on the sale to the particular customer.

That, of course, is an important thing. By and large, on the general rule, you cannot work out the savings resulting from particular transactions. If that construction is correct, you cannot — subject, possibly, to intricate exceptions—give free deals. If Congress does not mean to outlaw that, then perhaps at this point, in small matters, sliding scales might be authorized by amendment.

The provision on the right to select customers should either be transposed from the place where it now occurs in the Act to a later part of the Act, or it should be re-worded or repeated so as to apply to the Act as a whole. The provision appears in subsection 2 (a). There is no repetition of it, and the context, where it does appear, does not indicate that it shall apply to subsections (d) and (e). It certainly does not appear in section 3, which is an entirely new law. As you know, of course, Section 1 (commonly called Section 2), with its subsections is an amendment of the Clayton Act. Section 3 is a statute that stands alone.

Likewise, there should be some uniformity of provision limiting the Act to competing customers. This, too, applies at some places in the Act and does not apply at others. And, upon the face of the Act, there is no reason at all to think that Congress meant to distinguish between the two situations. For instance, take (d) and (e) again—those "coming and going" sections. They are the best to use because they illustrate these things and because the philosophy of one is exactly the same as the other. It is very difficult to imagine that Congress intended making any distinction between the philosophies of the two. In (d) you must not make payments to dealers for services unless they are made "available" on proportionally equal terms to other "customers competing in the distribution of the goods." Under (e), the services or facilities must be "accorded" on proportionally equal terms to all "purchasers," saying nothing about "competing in the distribution of the goods."

What Exact Meaning?

SECTION 3 just opens the door wide and says that you must not be a party to any transaction of sale in which discounts and advertising allowances, or other concessions, are made unless they are available to all "competitors of the purchaser."

Section 1, which is amended Section 2 of the Clayton Act, requires services, facilities, and payments to be available, or accorded, to customers or purchasers competing in the distribution of the product, with the exception of (e) as to competing in the distribution. Section 3 forbids these concessions unless they are made available to the "competitors of the purchaser." Literally, Section 1 forbids the seller from discriminating unfairly between his own customers—or *his own purchasers*, though we don't know that Congress meant the latter; while Section 3 forbids discrimination against *competitors of the purchaser*.

Section 3 would forbid discounts, advertising allowances, and other concessions, unless they are available to all buyers who compete with the seller's buyers, regardless of whether they are the seller's customers and regardless of whether the seller wants them for customers or not. There it is written in plain English. If there is any other construction to be put upon it, the court must do it,—must write arbitrarily into the statute something that is not there. And, again, there is need for amendment as long as Section 3 stands that way, to say nothing of the inconsistencies in subsections (d) and (e).

Then, there is need for the requirement that a discrimination injure, prevent, or destroy competition to apply to subsections (d) and (e). Do you realize, as lawyers say to you in private conference or public speaking that discrimination must injure, or destroy, or prevent competition, that only a forced construction reads it into (d) and (e)? This requirement appears in subsection (a) which

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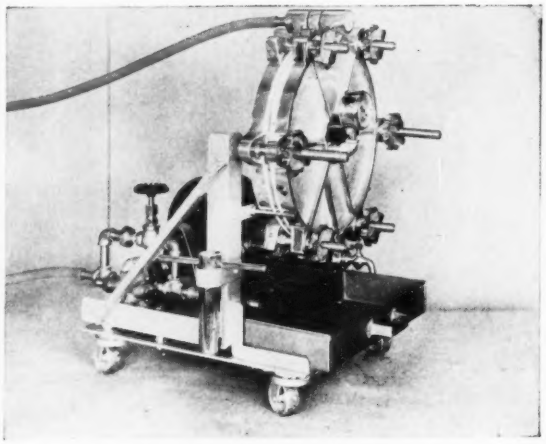

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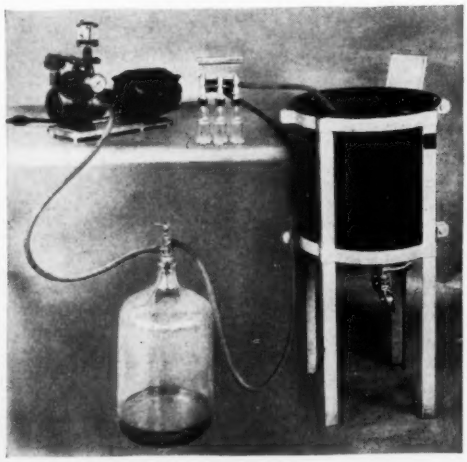

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has to do with discriminations in price. There is nothing in subsections (d) and (e) or later in the Act requiring a showing that competition has been injured or adversely affected. If it is to be there, then, again, the court has got to put it there. It has got to do what the court is sometimes criticized as doing — especially in these days—legislate. This is a very real question at the moment with some of the enforcement agencies. They are considering their authority and prospects for proceeding under (d) and (e) without asserting damage.

Now, this argument may be made, and I have sympathy with it—but it is only argument—that, for the right of Congress to enact these subsections (d) and (e), and in order to give them a valid and sensible construction, subsections (b) and (f) should be construed as extensions of, or elaborations upon, subsection (a). In other words, services and payments therefor should be construed as means of accomplishing *indirect* price discrimination. Subsection (a) says it shall be unlawful either *directly* or *indirectly* to discriminate in price. Now, the import of this construction on the succeeding subsections is that services, facilities, and payments therefor are means of accomplishing *indirect* price discrimination. That was very clear in one of the bills.

If that construction is not correct, you are up against this proposition,—as untenable as it seems for the government to assert it,—that Congress may pass a law and say you cannot pay for cooperative advertising, you cannot furnish demonstrators, you cannot pay PMs, you cannot make so-called advertising allowances, you cannot do all these things that subsections (d) and (e) enjoin just because we, Congress, say you can't. No matter whether they have any adverse effect on interstate commerce or not, no matter whether they affect competition in goods traded in interstate commerce, we as the Congress declare that you cannot contract with a dealer for cooperative advertising; you cannot send a demonstrator to his place, you cannot do any of the things covered by (d) and (e). That construction is entertaining, and it might prevail. I doubt it, but there it is so far as the Act in its present composition stands.

The courts have said in the past that general language should not be read to reach absurd consequences and constructions. The Supreme Court said that. And, the Circuit Court of Appeals has said, with respect to the Food and Drug Act, that general language should not be read to comprehend practices which do not tend to deceive the public or injure the public, or unless those practices otherwise fall within the purposes of the Act.

In the next place, this law might be amended very simply at this point. It might go back to what a former bill before Congress provided,—that these subsections are means of accomplishing indirect price discrimination. If that were done, it would cure many of the defects I have mentioned here today. For instance, the right to select customers would then follow right on through clearly without any obstruction and the other limitations that are set up in 2 (a) would follow right through.

Remove Criminal Section

IN the next place, Section 3, the criminal section, should be stricken out. Regulatory laws seeking to accomplish such widespread regulation as this one should not be enforced by hauling people into the criminal courts. That thing goes very deep. It goes to one of the fundamentals in this country,—that people who are law-abiding, who do not do things that endanger the lives and liberty of other men, be allowed to keep their escutcheons clear of criminal blemish against petty offenses and regulatory infractions. No man in this room today wants to be carried into the criminal court even if assured of acquittal,—much less when there is the hazard that he might be convicted.

Something should be done with respect to provisions for civil damage actions by private parties. That, of course, appears in the old Clayton Act, and is in this law by virtue of its being an amendment of the Clayton Act. If it is not wise to strike it out, then it seems to me it ought to be modified to limit the recovery to actual damages; or, perhaps, limit the period of recovery. The statute of limitations is now about six years in various states, so that any infraction of this law may subject you for six long years to treble damages.

The extent of the law's application is vast and minute. It applies as far as the goods reach. The scope of the Act goes that far, and so does the danger of private suits. You have no assurance that you are not violating this law, no matter how honestly or seriously you desire to obey it, no matter how diligently you seek advice, no matter how vigilantly you learn and conform with the Federal Trade Commission construction of it.

There is the hazard. The Federal Trade Commission, over a long period of years, may enforce this statute without making any unreasonable construction. You may acquiesce in the views of the Commission and shape your policies and your practices in the light of them. Several years later a case of facts may reach a high court, and the application of the letter of this law to those facts may have the effect of reversing the position of the Commission which it has held for several years and which business has been following. When that happens all who have been injured by the practice theretofore approved by the Commission may sue for damages over the full period of time, and recover them three-fold, plus costs and attorneys fees. That is the chief hazard.

The best way to determine what this hazard is, is to go to the annotations under the old law. But, before that, I ought to say that this Act expands the old law immeasurably. The old law is very confined in comparison. In the same ratio in which it is expanded, in that same ratio potential plaintiffs and damage suits are expanded. But, under the old law, the total cases between private parties, taken from the annotations to the Clayton and Sherman Acts as they appear in the United

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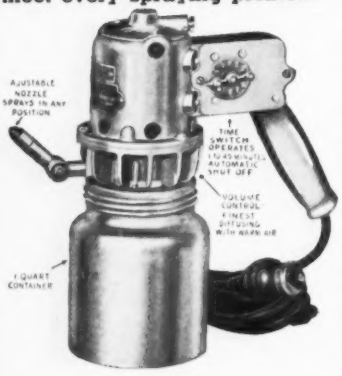
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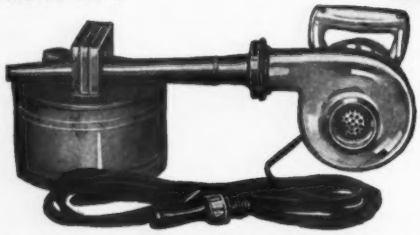
MODEL 54—1 QT. CAPACITY It features an automatic time switch set at any point from 1 to **30 minutes** — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. **MODEL 53** same as Model 54 except does not have automatic time switch.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street **Chicago, Ill.**

We do not sell insecticides. Our business is manufacturing sprayers.

Patented in U. S. A. and Foreign Countries

How Can You Be Sure How Good They Are

WHEN YOU ORDER PYRETHRUM EXTRACTS AND POWDER ?

DI-BUG *TELLS:*

1. Be sure the products are made from the very finest selected new crop flowers.

2. Be sure the Pyrethrin content is high.

3. Be sure every batch of every product is thoroughly tested biologically by the Peet-Grady Method.

4. Be sure complete chemical assay is made of pyrethrin content at start and finish of manufacture.

It is important to every user that DI-BUG Pyrethrum Extracts and Powder provide complete assurance on every one of these essential considerations. Write for literature and further information.

Attend the twelfth Annual Drug, Chemical and Allied Trades Banquet at the Waldorf-Astoria in New York City on March 4.

SHERWOOD PETROLEUM COMPANY, Inc.

Main Office: BUSH TERMINAL, BROOKLYN, N. Y.

Stocks Carried in Principal Cities

States Code numbered 162. This figure applies only to reported cases. It could not possibly comprehend all the cases brought and not reported, compromised and not tried.

Of the 162 cases, 37 were for injunction, and 125 for damages. Injunctions were allowed in 10 cases, denied in 18. In 9 cases the court's opinion did not deal with the merits. Damages were granted in 15 cases, denied in 45 (not all on the merits; some on special bars to recovery). 65 cases were before the court on points which did not require final decision on the merits. Out of the 162 cases, 93 were appealed and 50 went to the United States Supreme Court, some of them twice.

The damages range from $25,000 in *Thomson* vs. *Cayser*, 243 US 66, to $277,329.58, plus $42,500 in attorneys' fees, in *Rankin* vs. *Associated Billposters*, 42 Fed. (2nd) 152. In *Straus* vs. *Victor Talking Machine Co.*, the damages recovered were over $132,000; in *Patterson* vs. *Story Parchment Paper Co.* $195,000. In *American Can* vs. *Ladoga*, the District Court awarded damages of $105,000 and $15,000 for attorneys' fees to the plaintiff, and the defendant appealed. The Circuit Court of Appeals affirmed the District Court and added $3,500 to the judgment as a fee for the plaintiff's lawyers defending the appeal—another incident of how lawyers may be beneficiaries under this law.

These private suits are not going to develop quickly. A plaintiff proposing to institute such a suit will be well advised if he is told to defer. The statute of limitations is six years in most states. Decision on provisions of the law may be obtained in the course of time at government expense in government suits. And, the amount of ultimate recovery increases as time goes on. Though the Clayton Act passed in 1914, the first case to reach the reports, as well as I recall now, was toward the middle of 1916.

There is no criticism of this Act on the principle that it is drawn for general regulation. That principle has a good deal of advocacy today—that the administrator should have latitude for changing conditions and to meet unforeseen circumstances. Perhaps in the complexities of modern life we must have legislation on that principle. But, it is not proper to bring over into legislation drawn on this principle punitive provisions which are proper in legislation drawn on a strict, concise principle where one knows exactly what he can and cannot do.

Applying this to this subject, there is no criticism of the law on the ground that it is drawn to the general principle. There is criticism that, drawn on that principle, it expressly affords opportunities for wholesale punitive and vindictive penalties which, in the nature of the Act and in circumstances which may arise, may be staggering in their enormity.

Finally, it is a demonstration of the vital need to amend this Act, to make it comprehensible in its technical composition, free of possibilities for absurd constructions, and effective to accomplish the purposes for which it was enacted. If that is not done, this Act will not accomplish its purpose. It will annoy and harass, but it will not contribute to the health of the economic order.

Food and Drug Bill

THE Food and Drug Bill is about to acquire a Congressional ancestry. Its genealogy goes back to that rare day in June, 1933, when a bill officially known as S. 1944, but to posterity as the Tugwell Bill, was introduced. The prospects for disposing of that bill at this session seem good. And, the prospects for disposing of it sanely, effectively, and objectively seem good. As you know, Senator Copeland, especially through his helper Mr. Salthe, has held meetings with groups in the affected trades, and the drug, cosmetic and food groups have professed their purpose to approach the matter objectively and work out a bill that is reasonable and effective.

Much of the future of this legislation depends upon what the industry does. Whether it can be disposed of this year, whether the prospects for disposing of it are good, depends as much upon the industry as upon Senator Copeland and others. It does not matter nearly so much this year what the industrial position on controverted provisions of the bill may be as it does what the attitude of the industry toward the matter is and how the industry presents its position on controverted provisions.

This year, industry cannot talk platitudinously. It cannot talk in a vacuum. This thing has been before us three or four years, the provisions have been fought over and considered. Industry this year must stand up and be counted, must state its position whether for or against a provision, and give reasons for it. There can be no criticism of industry as long as it follows that course and as long as industry opposes provisions of the bill which it has a right to oppose, and which it should oppose. If it is opposed to something, let it say it is opposed and give reasons for it.

Perhaps here again we have the same situation as with the Patman law, that the bill must be drawn on the flexible principle. If the bill is to follow that principle, the essential consideration for industry is that access to the courts be not obstructed, that restraints be available to enjoin abuses of administrative discretion, that inadvertent and inconsequential infractions be dealt with in an administrative and not a punitive way. When that objective is met, industry will not be justified in stressing objections to definitive provisions which may not be entirely agreeable.

Industry must give earnest regard to the status of competitive practices in the industry and to the appearance of industry before the public. There is much to say about that. It must decide whether the opportunity for chiseling competitive practices and public deception shall be preserved or foreclosed by those in industry who condemn such practices. The darkest cloud on the horizon of economic permanency is racketeering within the industry, and that goes for the vermin as well as the "respectables" who sail close to the wind.

There are a number of provisions that are going to be threshed over in this bill, and if I did not have such regard for the promise I made I might go into them. I had so intended.

JOBBERS

This new valuable book is at your service every day in the year. Write for your **FREE** *Copy today.*

PENETRATING **SEAL** is the answer to successful wood floor maintenance.

We offer treatments, finishes and maintenance materials for:

Wood	Masonite	Terrazzo
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Mastic	Concrete	Rubber
Rubber	Furniture	Tile and Marble

T. F. WASHBURN COMPANY
2244 Elston Ave., Chicago, Ill.

Uncle Sam Says:

THREE MORE
BEST BY TEST PRODUCTS

Write for Samples and Descriptive Circulars

Metal Polish
Non-Rubbing Wax
Deodorizing Blocks
Urinal Cakes
Fly Sprays
Moth Preventives
Furniture Polish
Prepared Wax Polish
(Liquid and Paste)

We Specialize in Bulk or Private Brand Packing

UNCLE SAM CHEMICAL CO., Inc.
Manufacturers for the Jobber
329 East 29th Street, New York, N. Y.
Established 1915

The arguments on them are well known, pro and con. There is, of course, the time honored seizure section. There are also the pharmacopoeia provision and the variation clause. There is the definition of cosmetics which I think you gentlemen will take a hand in changing. Soap, under the definition in these bills, is not to be considered a cosmetic unless it makes medicinal claims, and we have the absurd situation of a soap for eczema being a cosmetic, and a powder for eczema being a drug; soap for healing is a cosmetic, powder is a drug. That has got into these bills in one fashion or another and has persisted down to the last time it was before Congress. In simple truth, face and hand soaps are cosmetics and, with other cleansing agents, should be subject to the proposed law.

There are the provision on pathological warnings and the provision that requires all drugs listed in the pharmacopoeia to be packaged and labeled as the pharmacopoeia prescribes, notwithstanding what improvements industry may make in any method, notwithstanding what antiquated prescriptions there may be in the pharmacopoeia—still, if the name of the drug is there, it must be packaged and labeled as the pharmacopoeia prescribes. That has persisted in these bills down to this time, and, I submit, should come out.

Who Shall Enforce It?

ADVERTISING has torn the government and industry apart as to whether the Federal Trade Commission or the Food and Drug Administration should enforce it. I am not going to enter that dispute. I have nothing to say either for or against either branch of government. It is a matter that Congress should determine,—especially since the criminal penalties for advertising violations were taken out of the bill. Administrative provisions should be determined by Congress. But, I will say that the provisions of the advertising sections have never been right heretofore and that perhaps much of the difficulty that we have had in the past might be avoided if those sections were corrected. Perhaps if those provisions were constructed to apply only to those advertising subjects which should be under government regulation much of the difficulty would be ended.

But, there is a job on advertising far bigger than the government can do. Industry must look to its responsibility in the voluntary control and regulation of advertising. We do not have to listen to the opponents of business and the opponents of advertising for criticism. People within the advertising world have spoken more critically than those on the outside about the present low ebb of advertising morals. There is a little pamphlet published by Consumers' Research, which is entitled "What Advertising Men Say About Advertising." I was going to read from it some remarks which your friend, Charles P. McCormick, made about insecticide and disinfectant advertising to this body last January.

New York City had to pass an ordinance to put a curb on the length of time closing out sales were running. We used not to believe a "no smoking" sign unless it said "positively." Now, we don't believe it when it does. Theatres advertise curtain time as eight-forty, and we don't believe them because the curtain goes up at eight-fifty. Cigarettes are now smoked for digestion's sake, and the same cigarette will give you a lift and soothe your nerves at the same time.

Yes, it will take many agencies to redeem advertising. No matter whether governmental supervision of food, drug and cosmetic advertising ultimately shall be by the Federal Trade Commission or the Food and Drug Administration, or both, industry itself has got a big job to do. Advertising has become of supreme importance today. It is becoming more and more influential in the economic order. Industry must see to its house. It must get it in order.

◆

Essential Oil Bactericides

Most work on the bactericidal action of essential oils has been devoted to examining the immediate lethal effect. Recent work covers both this and long-term action. By observing whether staphylococci were able to develop or not on the surface of small pieces of wood impregnated with a uniform quantity of various essential oils, it was found that no growth would take place before the lapse of the number of days shown below:

Thyme oil	28 days
Lemon oil	20 days
Camphor oil	20 days
Wild thyme oil	18 days
Lavender oil	15 days
Mustard oil	11 days
Cedar oil	8 days
Turpentine oil	4 days

Wood similarly treated with formalin (40 per cent formaldehyde) permitted growth of staphylococci in less than 6 days after impregnation.

When two oils of different volatility were mixed and the mixture tested in the same manner, the antiseptic value was measured in years rather than in days. Thus, thyme oil and turpentine; thyme oil and terpineol; thyme oil and cinnamon oil; thyme oil and benzoin would not permit the growth of staphylococci until after more than four years. Fixation markedly prolongs the antiseptic value of essential oils.

In addition, mixing essential oils greatly enhances their immediate effect. To cause the disappearance of colonies of the well-known red *Bacterium prodigiosum*, the two mixtures of thyme oil and terpineol, and bitter almond oil and cinnamon oil, required 72 and 30 minutes respectively. A mixture of all four brought about the same result after an exposure of only 13 minutes. The amount of essential oils that was sprayed is stated to have been only one twenty-millionth of the volume of the air. *Manufacturing Chemist* **7**, 404 (1936).

◆

Rotenone—Soap Efficiency

Rotenone, daguelin and derris are respectively 2.3, 1.0 and 0.387 times as effective as neutral potassium oleate as a contact insecticide for the control of the Japanese beetle. The addition of a small quantity of soap to the derris spray in the field greatly increases its effectiveness. Walter E. Fleming and Francis E. Baker. *J. Agr. Research* **53**, 197-207 (1936).

LOWELL

SPRAYERS MAKE INSECTICIDES GO FARTHER!

The reason is a logical one — Lowell Sprayers exclusive design pushes insecticide out in a finely atomized mist. Full powered force to the very end of the stroke — that's the secret of Lowell's NU-ACTION!

This finely misted spray has waste eliminating features. No lost liquid through dripping or siphoning.

Save money on every plunger stroke — Spray resultfully with Lowell. Satisfactory spraying, plus insecticide saving!

LOWELL CAN GIVE IT AND TAKE IT TOO!

Every Lowell Sprayer comes to you with the background of proven results in actual use. Under every condition--under every strain--Lowell stands up and takes it!

BLIND SPOT SPRAYING ELIMINATED

The diagram shows poorly atomized spray, notice the wasted blind spots—and compare with solid atomized mist in NU-ACTION sprayers!

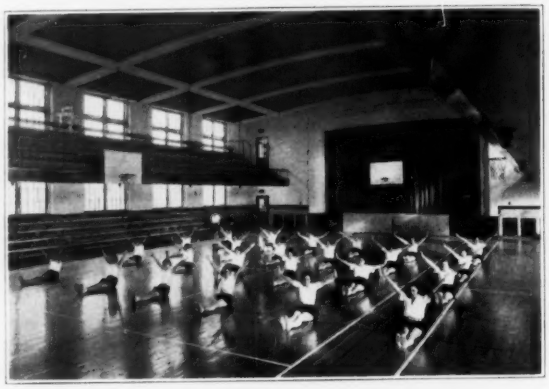
It's a new mist spreading **POWER HOUSE**

Send now for the Complete Lowell Catalog of Sprayers for every use.

LOWELL MANUFACTURING CO.
North Pier Terminal, Opp. Navy Pier, Chicago

NAME
ADDRESS
CITY

Save Gym Floors with the ORIGINAL No-Burn Gym Finish



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SOLVE YOUR FLOOR PROBLEMS

Send for this FREE BOOK--Tells how to properly finish all types of floors.

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Kindly send without cost or obligation your
FLOOR FINISHING & MAINTENANCE MANUAL.

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Company .....
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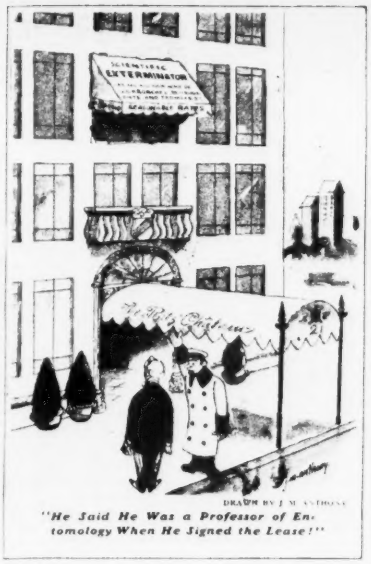
City ..... *State*.....

FEDERAL VARNISH CO.



"He Said He Was a Professor of Entomology When He Signed the Lease!"

(Reproduced by special permission from The Saturday Evening Post, copyright, 1936, by Curtis Publishing Co.)

C. L. Speiden Retires

C. Leith Speiden, who has been with Innis, Speiden & Co., New York, since his graduation from Cornell University in 1915, has resigned his position with the company and will pursue his active interest in the chemurgic movement. The purpose of this movement is to advance, through applied science, the use of American farm products in industry.

Canadian Toiletries Gain

Toilet production of toilet goods by the Canadian industry amounted to $7,120,000 in 1935, according to a recent report of the Chemical Division of the Dominion Department of Commerce. This compares with $6,745,500 in 1934 and a little less than $6,000,000 in 1933. A total of 83 plants, employing an average of 1,050 workers, operated during the year, it was stated. Canada is rapidly attaining self-sufficiency in toiletries, and is currently supplying well over 90 per cent of its requirements for such products.

Polish Essential Oil Plant

Work on a new factory for the production of essential oils and pine extracts has recently been started at Worochta in southeastern Poland.

National Association of Insecticide *and* Disinfectant Manufacturers

OFFICERS

President.....**W. B. Eddy**
Rochester Germicide Co., Rochester, N. Y.
1st Vice-President.....**W. G. Griesemer**
Black Flag Co., Baltimore, Md.
2nd Vice-President.....**J. L. Brenn**
Huntington Laboratories, Inc., Huntington, Ind.
Treasurer.....**John Powell**
John Powell & Co., New York
Secretary.....**John H. Wright**

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H. A. Nelson	Chemical Supply Co., Cleveland
S. S. Selig	The Selig Co., Atlanta
Wallace Thomas	Gulf Refining Co., Pittsburgh
Dr. Robert C. White	Robert C. White Co., Philadelphia
R. H. Young	Davies-Young Soap Co., Dayton, O.
W. J. Zick	Stanco, Incorporated, New York

MEMBERSHIP

Active Membership

All reputable persons, firms or corporations engaged in or allied with the business of manufacturing or distributing disinfectants, antiseptics, germicides, household insecticides, sanitary supplies, and/or articles coming within the purview of the Federal Insecticide Act of 1910 shall be eligible for Active Membership in the manner prescribed in the By-Laws.

Associate Membership

All reputable persons, firms or corporations engaged in the manufacture or distribution of raw materials, containers, packaging machinery, spraying devices or other articles, or services, normally purchased by Active Members of the Association shall be eligible for Associate Membership, to have and enjoy all the privileges of Active Membership but without the right to vote or hold office.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

122 E. 42nd STREET NEW YORK

BARRETT CHEMICALS

Barrett
COAL-TAR
CHEMICALS

Barrett Chemicals are the result of 82 years of successful manufacturing experience. They are produced to meet the most exacting demands for quality, uniformity and dependability. Barrett's unmatched service is assured with every order. Phone, wire or write for quotations.

AMMONIA LIQUOR
ANHYDROUS AMMONIA
BARRETAN*
BENZOL
CRESOLS
U. S. P., Meta Para, Ortho
Special Fractions
CRESYLIC ACID
Straw Color and Dark
CUMAR*
Paracoumarone-indene Resin
FLOTATION OILS and REAGENTS
HI-FLASH NAPHTHA
HYDROCARBON OIL
NAPHTHALENE
Crude, Refined Chipped, Flake and Ball
PHENOL (Natural)
U. S. P. 39.5° M. Pt. and 40° M. Pt.
Technical 39° M. Pt.
Technical 82-84% and 90-92%
PICKLING INHIBITORS
PICOLINES
PYRIDINE
Refined, Denaturing and Commercial
QUINOLINES
RUBBER SOFTENERS
SHINGLE STAIN OIL
SOLVENT NAPHTHA
SPECIAL HEAVY OIL
TAR ACID OILS
TOLUOL
XYLENOLS
XYLOL

*Reg. U. S. Pat. Off.

THE TECHNICAL SERVICE BUREAU of The Barrett Company invites your consultation with its technically trained staff, without cost or obligation. Address The Technical Service Bureau, The Barrett Company, 40 Rector Street, New York.

THE BARRETT COMPANY
40 Rector Street, New York, N. Y.

HUDSON

Have A Heart . . . !

The Depression's Over!

For the last six years, all of us did the best we could with what we had. Now, the depression's over—we want something better—and we're willing to pay for it!

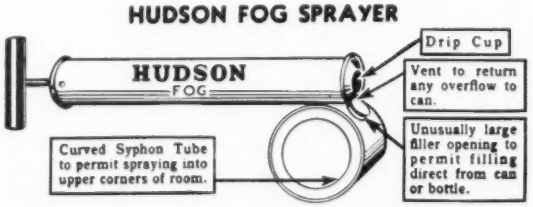
Tearfully, Mrs. America implores you to give her a sprayer that really kills insects—not one to merely molest them!

American housewives have been educated to the fact that spraying should be done up—not horizontally or down! But what's the use of a little popgun sprayer that won't throw a mist to the ceiling?

Where price is the only consideration, we supply "little" sprayers. But we'd rather sell you one that does a better job of killing insects. That's the Hudson Fog Sprayer—the perfect model for household use with a powerful blast that turns fly oils into a room-filling, death-dealing vapor.

Supply it with your insecticide to get better results and more repeat business. Housewives are willing to pay the small difference in price!

HUDSON FOG SPRAYER


Drip Cup
HUDSON
FOG
Vent to return any overflow to can.
Unusually large filler opening to permit filling direct from can or bottle.
Curved Syphon Tube to permit spraying into upper corners of room.

Start 1937 off with a bang! Ask us about quantity prices on the Hudson Fog Sprayers. Your inquiry won't obligate you and it may result in bigger sales for your product. Write us today.

H. D. HUDSON MFG. CO.
589 EAST ILLINOIS STREET CHICAGO, ILLINOIS

NEWS . . . . . .

Rochester Germicide Appoints

H. F. Wittmaack has just been promoted by Rochester Germicide Co., Rochester, N. Y., to be manager of their St. Paul office, which is located at 592 North Snelling Ave.

Koppers Promotes McClintic

Robert H. McClintic, formerly advertising and sales promotion manager of Koppers Products Co., Pittsburgh, has been appointed assistant to the president in charge of all advertising and sales promotion matters for the Koppers Co., its divisions and subsidiaries, except for the company's coke plants.

Tongue Bros. Join Assn.

R. E. Tongue Bros. Co., Allegheny & Amber Aves., Philadelphia, has just been elected to active membership in the National Association of Insecticide and Disinfectant Manufacturers.

Getz Names Officers

At the recent annual meeting of the stockholders and directors of Getz Exterminators, Inc., St. Louis, Thomas C. Raley, president and treasurer and Lea A. Sain, secretary, were re-elected. G. H. Burnett of the Atlanta branch office was elected vice-president and director to succeed C. H. Bedingfield of the Kansas City office.

Laclede Laboratories Move

Laclede Laboratories, a servicing and manufacturing company in the insecticide field, recently moved to new quarters at 1444 Cass Ave., St. Louis. They were formerly at 1107 Chouteau Ave.

V. C. Prods. In New Plant

V. C. Products Co., soaps and sanitary products, Philadelphia, has purchased and is rebuilding a plant to handle retail package business. The new retail line will be ready for the market by March and will be distributed through the grocery, drug and department store trades. The firm also advises that Alex Katona, formerly with Meeka Laboratories and Sterling Laundry Supply Co., is now their head chemist.

Charles Auerbach Dies

Charles Auerbach, manager of the Philadelphia and New York sales branches of West Disinfecting Co., L. I. City, N. Y., died in Philadelphia, January 15, following an operation. Mr. Auerbach was sixty-two years old and had been with West for over thirty-eight years. He was widely known throughout the sanitary products trade.

Standard Adds Salesmen

Several additional salesmen will be employed in the near future by Standard Chemical Co., St. Louis, according to David Kreekun, head of the concern. This company, engaged in the manufacture of insecticides, disinfectants, waxes, etc., has distribution of its products in Missouri, Illinois, and part of Kansas. The business was founded three years ago.

New I & D By-Laws

National Association of Insecticide & Disinfectant Manufacturers has issued its revised and reprinted constitution and by-laws, including all changes and revisions made during 1936. Copies are available at the office of the Association secretary, John H. Wright, 122 East 42d St., New York.

F.T.C. Cites Flori

Flori Mothproofing Method, Inc., Philadelphia, was charged in a complaint issued January, 9, by the U. S. Federal Trade Commission with unfair methods of competition in connection with the sale of "Flori," a liquid moth-proofing preparation. According to the complaint, certain advertising claims made in sale of the product are false. The product does not kill moths and other insects, the commission charges, and does not render articles impregnated with "Flori," permanently immune to damage or injury. The complaint charges further that the insurance advertised does not extend to moth damage to articles while in the possession of the public and consumers. It is limited, says the complaint, to manufacturers of and dealers in articles impregnated with "Flori" only while such articles are in their possession.

Sol Fuld Dies

Sol Fuld, father of Melvin and Joseph Fuld of Fuld Bros., Baltimore, died January 25. His funeral was held from his late home at 2613 Liberty Heights Ave., Baltimore, January 27. The Fuld plant remained closed from the time of Mr. Fuld's death until January 28.

Sanitary Distributors Visit P. O.

The Associated Sanitary Supply Distributors, of Chicago, took time out from their regular schedule of meetings on January 18th to find out what goes on behind the scenes in Chicago's recently completed post office. In February the regular business meeting will be held as usual.

Insecticide Contest

John Powell & Co., New York, have announced a contest to be held for salesmen of household insecticides and stock sprays. Prizes of $100 for first, $50 for second, and $25 each for third and fourth places in the contest will be awarded. The contest which is stated by the Powell Company to be of a purely educational character, designed to make salesmen "insecticide conscious" to a greater degree, requires the answer to one question in as few words as possible: "Why are insecticides year 'round necessities in the home and on the farm?" The best answers will be selected by a committee of three judges to be chosen from the industry. Entries must be in by March 15 and are limited strictly to insecticide salesmen for manufacturers or jobbers. Retail clerks or salesmen in stores are not eligible. Those desir-

ANNOUNCING

CHEMICAL SUPPLY CO's

NEW

PRICE LIST

AND

CATALOG

COMPLETE LINE OF
DISINFECTANTS — INSECTICIDES — POLISHES
CLEANING COMPOUNDS — LIQUID DEODORANTS
BUILDING SPECIALTIES — ETC.

•

WRITE FOR YOUR COPY NOW

•

THE CHEMICAL SUPPLY CO.

2450 CANAL RD. **CLEVELAND, O.**

"SINCE 1898"

Get a horse!

That was the cry of the reactionaries in the early days of the automobile. Deodorized base has also come to stay.

We suggest you select

NONODR

The completely deodorized base for liquid insecticides.

MADE RIGHT **PRICED RIGHT**

O'CONNOR & KREMP

11 West 42nd Street **New York, N. Y.**

Sole Agents

BRADFORD PENN REFINING CORP.
Clarendon, Penna.

ing to enter the contest should write out their answer to the question as briefly as possible, have their employer attest at the end of the statement that they are bona fide sales employes, and have the employer send the entry to the contest committee, care of John Powell & Co., 116 East 32d St., New York. Entry in the contest is free. Only one entry may be made by any individual. Further details may be secured from John Powell & Co. The names of the three judges will be announced later.

Barrett Official Dies

Lester Wittenberg, executive vice-president of Barrett Co., New York, died January 18 in a hospital in New Rochelle, N. Y., after a short illness. He was fifty-nine years old.

New Prentiss Plant Operating

A new plant and warehouse was put into operation by R. J. Prentiss & Co., New York, early in February at 261 King St., Brooklyn. The building is a three-story unit and provides sufficient space for further expansion in the future. An entirely new milling unit has been set up, with the best in modern drug and insecticide base milling equipment. A section of the plant has been set aside for the manufacture of insecticidal bases, both from pyrethrum and derris, and a new and modern laboratory is also being equipped. This will make it possible to concentrate at the Brooklyn quarters research and laboratory facilities which have previously been divided between New York and St. Louis. The building is part of the New York Dock property. A private railroad siding will provide a convenient pick-up for all l.c.l shipments.

George Simmonds Sails

George L. Simmonds, president of U. S. Sanitary Specialties Corp., Chicago, sailed on the *S. S. Roma* on January 29th for a two-months' Mediterranean cruise. Included in his itinerary were: Gibraltar, France, Italy, North Africa, Egypt and the Holy Land. Mr. Simmonds reports that U. S. Sanitary has just finished one of the most successful years in the history of the company.

Sanitary Supply Firm Moves

Pacific Chemical Co., manufacturer of soaps and sanitary products, moved recently to 975 Folsom St., San Francisco, from 1066 Mission St.

Exterminators Meet Oct. 25

The National Association of Exterminators and Fumigators through Harry J. Hammond, general chairman of the national convention committee, announces that the fifth annal convention of the association will be held at Hotel Peabody, Memphis, Tenn., Monday, Tuesday and Wednesday, October 25-26-27 this year. The program will follow the same lines as for the 1936 meeting but with fewer speakers so as to permit more time for the clinics and symposiums on definite pests. In connection with the symposiums, questions will be prepared in advance and greater time allowed for discussion. Suggestions may be addressed to Mr. Hammond at 1016 North Jackson St., Milwaukee. The national convention committee is composed of Mr. Hammond, chairman; Lawrence A. McKenna of Cleveland; Otto Orkin of Atlanta; William O. Buettner of Brooklyn; Harold E. Jennings of Chicago; and Wilbur F. Smith of Pasadena, Calif. The Local Memphis Committee is headed by Louis Kotler (619 Exchange Building) with Joseph Hill, treasurer, and B. F. Jenkins, secretary.

McCormick Bank Director

Charles P. McCormick, President of McCormick & Co., Baltimore, has been elected director of the Baltimore branch of the Federal Reserve Bank of Richmond, Va. for a period of three years—term ending Dec. 31, 1939.

Cleno Chemical Moves

Cleno Chemical Co., St. Louis, soaps, disinfectants, insecticides, has moved to 6600 Washington St. from 7073 Arcadia St.

Selig Sails for Europe

Simon Selig, of Selig Co., Atlanta, sailed February 1 for a two-months' trip to Europe. He expects to return early in April.

Wolff Heads Drug Assn.

J. M. Wolff, director of manufacturing for Frederick Stearns & Co., Detroit, was recently elected president of the Allied Drug & Cosmetic Association of Michigan for the coming year, to succeed A. R. Vicary of Mark W. Allen Co. G. Carlisle, of C. E. Jamieson Co., was elected vice-president, succeeding C. E. Jamieson, and M. G. de Navarre was re-elected secretary-treasurer. A. R. Vicary, C. E. Jamieson Co., and O. Wegner, of Nelson Baker Co., were elected to the executive committee.

Exterminators Move

Sterling Products Co., exterminators, Detroit, moved recently from 314 Curtis Bldg., to 301 Donovan Bldg.

INSECTICIDE TESTING

IN order that full data on testing liquid insecticide household sprays may be available in one place for manufacturers and laboratories, the new National Association of Insecticide & Disinfectant Manufacturers' official specification for these sprays, the complete technique of the Peet-Grady Test, and the purpose and method of using the new 1937 Official Control Insecticide are all given in full in the 1937 *Soap Blue Book & Catalog* which will be off the press very soon. A copy of this *Blue Book* automatically goes without charge to every subscriber to *Soap*. Therefore, if you are a subscriber, you should receive your copy within the next few weeks, making available to you the full details for insecticide testing.

Baird's

99-100% CRESYLIC ACID

is different from the ordinary run of Cresylic Acid in that—

It is almost water-white in color and will so remain for a long time. Samples in test-tubes exposed to direct sunlight for three weeks showed no perceptible change in color.

It is entirely free from gassy odor. It has a characteristic odor of cresol and products made from it are not rendered "smelly" or objectionable.

98-99% CRESYLIC ACID

It is higher boiling than many cresylic acids now offered; hence it is better suited for use as a preservative and anti-fermentive in compounds which tend to turn rancid or sour.

It is uniform throughout, perfectly transparent and without a trace of cloudiness. Produced exclusively for us according to our own specifications in England, you are assured at all times of an acid of fixed standard and quality.

Your inquiries and orders are solicited. Samples will be gladly sent for testing, and quotations submitted on any quantity you can use, either for shipment from Holbrook, St. Louis or direct importation.

BAIRD & McGUIRE, INC.
Manufacturing Chemists
HOLBROOK, MASSACHUSETTS, U. S. A.
ST. LOUIS, MISSOURI, U. S. A.

SUDDEN DEATH

Atlantic Ultrasene

—A BETTER BASE FOR BETTER INSECTICIDES

Mr. Fly has had a rendezvous with death. An insecticide has killed him . . . quickly, ruthlessly, silently. No clue remains.

But there is no mystery involved. No clue remains because Atlantic Ultrasene was the insecticide base. Ultrasene is a petroleum product highly refined for only one purpose — as a carrier for insect killers. Uniform, it evaporates rapidly, leaves no unpleasant odor, no thin film of oil, no trace . . . no clue.

It immediately becomes obvious why Atlantic Ultrasene-base insecticides are so popular with men who must constantly guard stores, cafes, markets against insects. It is also obvious, then, why discerning insecticide manufacturers are choosing Ultrasene for their spray-base.

We feel that it will be to your advantage to know more about Atlantic Ultrasene. Our technical department can help you with additional information and liberal experimental samples. The Atlantic Refining Company, Specialty Sales Department, 260 South Broad Street, Philadelphia, Pennsylvania.

ATLANTIC ULTRASENE

Insecticide Laboratory

Richard J. Prentiss, president of R. J. Prentiss & Co., New York, pyrethrum and rotenone factors, suggests that an official insecticide testing laboratory is now needed in keeping with new specifications and methods of testing insecticides of the National Association of Insecticide & Disinfectant Manufacturers. In a communication to *Soap*, he states:

"The action of the National Insecticide and Disinfectant Association taken at the June Convention in adopting a standard sample for use in making comparative Peet-Grady tests is undoubtedly a decided step forward. The December Convention showed that the use of the standard sample has met with the general approval of the industry, even though it is admitted that further study of the question is both desirable and necessary.

"In general, it may be said that the adoption of any control sample facilitates comparisons and makes it easier to correlate the results obtained by different laboratories on the same material. It seems to us, however, that the Association might, with entire propriety, consider the possibility of a further step, namely; the establishment of a competent central testing laboratory under the control and supervision of the Association to run Peet-Grady test for members.

"As matters stand at the present time, a large proportion of those interested in obtaining Peet-Grady tests do not possess adequate facilities of their own for making these tests. In the nature of things this condition will continue as regards a large proportion of the membership. Those members who do not have facilities of their own are compelled to depend on tests made by outside laboratories. Unfortunately, there is a distinct shortage of outside laboratories which are equipped and qualified to run the tests, if we eliminate from the list those laboratories which are either completely controlled and operated by supply houses and those which possess close commercial affiliations with either supply houses or spray manufacturers.

"There is, therefore, definite need for a competent well-equipped, well-qualified laboratory, which would be completely unprejudiced and unbiased. The establishment of such a laboratory would seem to be well within the scope of the proper activities of the Association and if a reasonable fee were charged for making the tests such a laboratory should be better than self-supporting. We offer the suggestion to yourself and your readers."

Prof. Exterminators Meet

The first 1937 meeting of the Professional Exterminators Association was held at the Building Trades Club, New York, January 7, with twenty-five guests in attendance in addition to the membership. The topic of the meeting was "Rodents, Hazards and Methods of Control." Among the speakers were the following: B. E. Holsendorf, U. S. Public Health Service, "Health Hazards of Rodents"; E. M. Mills, U. S. Department of Agriculture, "Squill — Its Uses and Formulas"; C. H. W. Hasselriis, Ratin Laboratory, "Uses of Bacteriologicals in Rodent Exterminating Work"; and Charles Opitz, John Opitz, Inc., "Phosphorus in Rodent Control." The meeting was presided over by M. H. Oachs, president, with N. K. Concannon, secretary, as toastmaster. A feature of the evening was the presentation of a watch to William J. Shrimplin, retiring president, on behalf of the membership. The next lecture and dinner meeting will be held on Tuesday, Feb. 15.

In connection with Mr. Mills' talk, the following new list of rat bait formulas using squill was given out to those in attendance:

Note: The basic food is dried bread crumbs. Obtain dried but not moldy white bread in whole loaves (not sliced), a non-milk bread is best. Break up the bread with the hands and put thru grinder with ⅜-inch holes, then press thru a sieve with around 40 holes to the square inch. Some bakers make these ground bread crumbs. These formulas require a highly toxic powdered red squill; inferior brands are not recommended.

	Small Lot Oz.	*Large Lot Lbs.*
S-Sq-1—Ground dried bread crumbs	52	65
Ground fresh pork fat (back strips are best)	4	5
Ground fresh halibut or haddock or cod	16	20
Powdered red squill (Mix the bread, pork fat, and halibut well and then add the squill and thoroughly mix.))	8	10
S-Sq-2—Ground dried bread crumbs	68	85
Glycerine, nut oil, or Mazola oil	4	5
Powdered red squill (Mix the bread and glycerine and then add the squill and thoroughly mix.)	8	10
S-Sq-3—Ground dried bread crumbs	30	37
Glycerine, nut oil, or Mazola oil	2½	3
Fresh bait—hamburger or fish or ground sweetpotatoes or ground apples or ground bananas	40	50
Powdered red squill (Mix the bread, glycerine and squill. Then add the fresh bait. Mix thoroughly.)	8	10
S-Sq-4—Ground hamburger	5 lbs.	100
Powdered red squill (Thoroughly mix the hamburger and squill, adding water to make quite moist.)	8	10

Bait Exposure: Place bait in half-teaspoonful quantities, at intervals along runways and walls and in all places where rats may feed. Use plenty of baits and cover the entire premises at one time. If using formula No. S-Sq-3 or S-Sq-4, place the baits in the late afternoon or evening, before dark. Uneaten baits should be collected and destroyed after three days. If using formula No. S-Sq-1 or S-Sq-2, the baits can be placed at any time of day. These baits will not deteriorate so can be collected at a later date if uneaten and exposed again after 4 weeks. Do not use the fresh or moist baits during freezing temperatures. Powdered red squill is relatively harmless to humans, pets, and poultry. It is best to keep the bait out of reach of animals, children, and irresponsible persons.

Additional details on rat control can be obtained by writing E. M. Mills, South College Bldg., Mass. State College, Amherst, Mass.

Loeffler With Monsanto

A. T. Loeffler, with the New York office of Hooker Electrochemical Co. for a number of years, resigned recently and is now in the New York offic of Monsanto Chemical Co.

YOU ARE LOOKING FOR A GOOD SALESMAN

For Insecticides and Sanitation Products

DOBBINS SUPERBILT SPRAYERS SUBMITS APPLICATION FOR THE JOB

The sales continuity of your products depends on the satisfactory and effective results they give the user.

Effectiveness is largely controlled by the application and atomization of many insecticides and sanitary products.

The convenience of application and the assurance that an effective amount of the product is properly atomized and dispensed, is most important to you.

If the job requires 1 quart of your product and the user tires at 1 pint, your sales possibilities are reduced one-half at every application—yes and the prestige of your products has suffered and another real sales job required to reestablish it.

Why then place in your customers' hands a small, cheap sprayer, and gamble on the effectiveness of your good product by the amount of elbow grease applied by the user.

Dobbins High Pressure Chemical Sprayers Will Sell MORE of Your Products

No. 35 Capacity 3 Qts.

A Powerful Chemical Sprayer with Controlled atomization.

WRITE US ABOUT YOUR SPRAY PROBLEMS

ASK FOR CATALOG 44

No. 33G Capacity 3 quarts

Continuous Sprayer with Patented Two-Way Whirling Spray Nozzle.

DOBBINS MANUFACTURING CO.

No. St. Paul, Minn.

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Opportunities to help you plan your 1937 Paradichlorbenzene products would be welcomed by us. Why not avail yourself of this service?

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Hold Pest Control Conference

The Purdue Pest Control Operators Conference, held at Purdue University, Lafayette, Ind., January 18-22, in cooperation with the National Association of Exterminators & Fumigators, was an unqualified success in every respect to judge by reports from those in attendance. The five-day session attracted an attendance in the neighborhood of one hundred, from fifteen different states. J. J. Davis, chief in entomology of Purdue University, who had general charge of the conference, reports that the university was as well pleased with results as those in attendance, and that he has the full support of President Elliott of Purdue University for another conference at a later date if the industry so desires.

With sessions on five separate days, the conference first took up fundamentals of pest control and then progressed in later sessions to specific control problems on pests of various types. Those who spoke or assisted in the work of the various sessions included: C. A. Vincent-Daviss, E. I. du Pont de Nemours & Co.; J. L. Horsfall and B. C. Culver, American Cyanamid & Chemical Corp.; E. F. Sennewald, Sennewald Drug Co.; Miss Olive Falls, Antimite Co.; Charles Denny, Charles Denny & Co.; George L. Hockenyos, Sentinel Insect Control Laboratory; R. R. Heaton, Terminix Co. of Indiana; G. C. Oderdirk, U. S. Biological Survey; W. E. McCauley, University of Illinois; and F. L. Campbell of Ohio State University.

Two evening sessions were held as supplementary to the object of the main conference. One of these was held Tuesday evening when the group met in informal session in the Faculty Lounge of the Purdue Memorial Union Building to listen to a discussion of advertising by Thos. R. Johnston, director of publicity of Purdue University. The second evening was also in the Faculty Lounge and dealt with the problem of legislation. In connection with the conference a room of displays was set up, including mounted material, cages and live material, insecticide appliances and publications of federal, state and commercial organizations.

An interested group studies exhibits at the Purdue Pest Control Conference. Left to right, Wm. O. Buettner, New York; A. C. Arnott, Indianapolis; Virgil Laird, Oklahoma; J. J. Davis, Purdue University; and B. W. Eldredge, Waltham, Mass.

The informal dinner, Thursday evening, was held in the Union Building. The speakers included Dr. Edward C. Elliott, president of Purdue University, who was very sincere in his remarks, emphasizing the importance of pest control work and its relation to public health. Other speakers included B. W. Eldredge, president of the National Association of Exterminators and Fumigators, and Wm. O. Buettner, secretary. The dinner meeting was closed with an eloquent humorous presentation to Wm. O. Buettner of the degree of "Pestiferous Doctor" by president Elliott.

Associated Exterminators Meet

The monthly meeting of Associated Exterminators and Fumigators, Inc., was held January 12 in the General Motors Building, New York, with William O. Buettner presiding. The committee on trade practices entered a preliminary report, outlining recent increases in operating cost due to higher raw materials, labor advances and increased taxes under the social security plan. Another topic taken up by the meeting was the possibility of changes in section 104 of the New York City sanitary code under which the exterminating industry is governed. The Association is sponsoring several changes which would include definite representation of the industry on the examining board, strict examinations for those desiring to enter the business as owner-operators, and in general bringing about a better service to the clients. Two new members were added to the roster; namely, Sunset Exterminating Co. of Brooklyn and Sudex, Inc., of New York City.

Hold Mouse Show

The first Mouse Show on record will be held at the Angell Memorial Hospital, Boston, Feb. 14 and 15, in connection with the annual Cat Show sponsored by that hospital. To date there are thirty entries in the rodent contest, who are reported to be in training for the event, according to a report sent by N. K. Concannon who is also grooming a "Dark Mouse" for the show which he is confining exclusively to a diet of limburger cheese. After the show, the report goes, the winning mouse will serve as dessert for the Number One Cat.

Prof. Exterminators Locate

The new and permanent address of the Professional Exterminators Association is 1451 Broadway, New York, c/o Buch & Buch. The temporary telephone number is WIsconsin 7-0380. M. H. Oachs, Exterminating Materials Co., heads the association, and N. K. Concannon is secretary.

SWEEPING COMPOUNDS

for Jobbing Trade only!

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"KLEENSWEEP"

THE PATENTED SWEEPING COMPOUND WITH THE SISAL BASE

IT'S GREEN

"SANISWEEP"

THE SWEEPING COMPOUND WITH THE SAWDUST BASE

Our preparations will help you increase your sales on SWEEPING COMPOUND.

SWEEPING COMPOUND M'N'F'R'S CO. OF N. Y. INC.

421 BROOME STREET
NEW YORK CITY

Alkalies
Trisodium Phosphate
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Chemicals

Our intimate knowledge of chemical markets and manufacturing sources enables us to supply chemical consumers, both large and small, at a distinct saving. Let us work on some of your requirements.

JOHN A. CHEW, INC.

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NEW WATERPROOF ZIP-ON WAX

A new Wax offered to the trade

Dries very bright and becomes water resistant as soon as it is dry.

We guarantee the wax content of ZIP-ON to be 100% Carnauba Wax.

SHAWMUT SPECIALTY CO.

91 Bickford Street **Boston, Mass.**

Manufacturers Specializing in Floor Treatments

Supplied with your private label if desired in any size container

ASK ABOUT "EMPIRE GLOSS," meets competition at attractive prices.

Testing Liquid Soaps

A simplified technique for determining the total anhydrous soap content of liquid soaps has been suggested by Dr. Miguel F. Garrido, president of Productos Farmaceuticos, S. A., Habana, Cuba, in a communication to *Soap*. He states:

"In my daily work as chemist in the Laboratory of the Public Works Department, I very often have to make determinations of total anhydrous soap in Liquid Soaps, using the technique recommended in the Federal Specifications for Liquid Soaps. This technique, though exact, is very laborious, time consuming and necessitates the use of liberal quantities of solvents. Searching the literature on this matter, I found only techniques similar to the above, so directing my efforts to finding a simpler technique, I developed one which while not absolutely exact, is well adapted for practical purposes. In brief the procedure consists in decomposing a certain quantity of the liquid soap with an acid and measuring the quantity of fatty acids set free.

"To this effect I found that an 18-gram Babcock milk bottle served my purpose and I had only to determine what quantity of real anhydrous soap represented the fatty acids in each division of the bottle. To determine this I prepared a liquid soap, using Commercial Ceylon Coconut Oil and Commercial Caustic Potash. I analyzed samples of this soap and the rsult of triplicate determinations gave 14.84 per cent of anyhdrous soap.

"Treating 5 c.c. of this soap in a Babcock bottle with 5 c.c. Hydrochloric Acid, adding saturated Sodium Chloride solution to bring the fatty acids to the stem of the bottle, I found that the soap under test furnished 3.6 divisions of fatty acids, therefore each division corresponds to 4.122 grams of anhydrous soap. The range on the stem of the Babcock bottle is large enough to enclose the fatty acids liberated by soaps up to 40 per cent of anhydrous soap. Of course, this procedure applies only to liquid soaps made with Potash and Coconut Oil; for soaps prepared with other oils and alkalis, the results will be slightly different.

"To 5 c.c. of liquid soap, measured with a pipette into a Babcock bottle, add 5 c.c. of 10 per cent Hydrochloric Acid solution. Place the bottle in a water bath at about 70° C. until the fatty acids are melted and form a clear layer over the watery liquid. Then add saturated Sodium Chloride solution to bring the fatty acids to the stem and centrifuge for a while so that the droplets of fatty acid adhering to the walls of the bottle, rise to the surface. With a compass, mark the upper and lower meniscus of the fatty acid column, and without changing its angle, put one of the points at the zero mark of the stem and read the divisions between both ends. Every division corresponds to 4.122 per cent of anhydrous soap."

Staples, Rochester, Dies

W. H. Staples, manager of the Cleveland branch of the Rochester Germicide Co., Rochester, N. Y. for the past two years, and for thirteen years prior to that, sales representative in the Rochester territory, died January 27 at the Lakeside Hospital, Lakeside, Ohio, of heart trouble. Mrs. Martha Staples, his wife took over the management of the Cleveland office on Jan. 1 owing to the illness of Mr. Staples. In addition to his wife, he is survived by his mother and a son. He was 49 years of age and a member of the Masonic Lodge of Ontario, N. Y.

22nd U. S. Dispensatory

J. B. Lippincott Co., Philadelphia, brought out the 22nd edition of the U. S. Dispensatory, January 22nd, one hundred and four years after the appearance of the first edition. This latest edition contains 1894 pages and lists 28,000 titles. It is the standard encyclopedia of drugs, and is well-known to every pharmacist, chemist and technical man.

W. B. Hampton, formerly with Scene-In-Action Advertising Co. and W. J. Rankin Corp., has just announced the formation of his own firm, Display Corp. of America, with offices in Chicago, to specialize in animated and static displays.

Cole at Augusta Hospital

Harry W. Cole, on leave of absence from Baird & McGuire, Inc., Holbrook, Mass., and for many years secretary of the National Association of Insecticide & Disinfectant Manufacturers, is convalescing at the University Hospital, Augusta, Ga. from a severe illness. He has been at the hospital for the past two months, having been taken ill on the train en route south for a vacation. He states that he is recovering rapidly and expects to return north late in the spring.

Henry Nelson Fishing

Henry A. Nelson, known both as the vice-president and general manager of the Chemical Supply Co., Cleveland, and as the Squire of Canal Road, Cleveland, reports from Captiva, Florida, where he is wintering that he recently landed a 300 pound jewfish off the Florida coast. Mr. Nelson reports that he caught the fish himself, and has had his picture taken along with said fish. He states that these are the facts in spite of reports that the picture was taken with a large stuffed fish,—owned by a photographer,—which has been in use for photographic purposes for several years past. Mr. Nelson is also a member of the board of the National Association of Insecticide & Disinfectant Manufacturers besides being a fisherman of note.

700 Drug Dinner Reservations

Ray Schlotterer, secretary of the Drug, Chemical and Allied Trades Section of the New York Board of Trade, reports that seven hundred reservations have already been made for the annual dinner at the Waldorf-Astoria, New York, which will be held this year on March 4. Tables for ten may be reserved now by addressing Mr. Schlotterer at 41 Park Row, New York.

Report Sales Increase

A scrub soap with a linseed oil base, manufactured by Cleaning Equipment Co., St. Louis, is reported showing an increase in sales. This company was established recently by C. E. Kren and T. W. Peckham.

PYRETHRUM EXTRACT

odorless—stabilized

Two Concentrations
20 to 1 5 to 1

From direct imported flowers, we manufacture pyrethrum extracts of standard strength in deodorized petroleum base,—and stabilized against deterioration. These extracts are sold at prices competitive with ordinary extracts.

Other HAMMOND Products

Pyrethrum Flowers—Granulated ready for percolation.
Rotenone Extracts—Standardized and stabilized against deterioration.
Rotenone-Pyrethrum Extracts—Various concentrates in combinations as required.

Ask us for further information.

HAMMOND
Paint & Chemical Co.
BEACON NEW YORK

SPECIALTY SOAP PRODUCTS

Liquid Soap Base
Potash Oil Soap
Liquid Soap
U. S. P. Green Soap
Auto Soaps
Shampoo
Pine Oil Soap
Shampoo Base
U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
Insecticides
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We manufacture for the trade only

HARLEY SOAP CO.,
2852 E. Pacific St.,
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Ask for samples of above specialty bulk products.

STRAIGHT SHOOTING

Let us place our experience and knowledge of world markets at your disposal.

CHEMICALS
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Address offers to

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254 W. 31st Street New York City

Plants Damaged by Flood

(*From Page* 43)

& G was not flooded, but closed merely for lack of power and water. The M. Werk Co. plant near-by remained a full ten feet above water, but closed for the same reason as P & G. Over in Covington, which was particularly badly flooded, the crest of the flood came within a foot of the plant of R. A. Jones & Co., widely known soap press manufacturer. The crest of the 1884 flood was taken into consideration by Dr. Jones in building their present plant 20 years ago, but this flood almost reached them. Frank M. Dudley of J. H. Day Co. was carried from his eighth-floor apartment in the exclusive Riverview Apartments when trapped by the fire. This is all now. Hope it gets through to you. So long."

Nowland on Ohio Flood

Clark C. Nowland, president of the George H. Nowland Co., Cincinnati, whose factory and offices were flooded to the second story by the raging Ohio River, reported his experiences in a personal letter written in pencil on company billheads at the height of the flood in Cincinnati. He stated:

"I thought you might be thinking that The George H. Nowland Company and yours truly were floating down around Memphis by this time but such is not the case and I am writing this sitting at my desk on the second floor of the plant with the "Old Ohio" less than three feet under me but, thank the Lord, it is not creeping up at the rate of a tenth of a foot per hour as it has been doing until early this morning.

For six days and nights with the loyal and hard work of all our employees, we have been able to beat "old Man River" although at times he was washing around our feet. We have saved all our merchandise and stock from the basements and first floors as well as all office equipment and records. We moved approximately six carloads of merchandise in addition to all office equipment and the last put-up stock was passed up through holes cut in the ceiling and second floor from our stock bins Sunday (Jan. 24). We were able to distribute this stock over the top four floors in both of our buildings and by cutting an opening through the walls into an empty building to the east of us, distributed the load so that there was no danger of overloading the floors.

I have had twenty-five years experience with floods down in the "bottoms," so we purchased a steel duck boat and plenty of hip boots from Sears-Roebuck before they were used for relief work which enabled us to do the work that we did. First we brought the boat in the front doors, then through the transom over the doors and then when that was impossible, rigged a ladder from the second story windows and are now using that, as the stage of the river was the unheard of height of 80.5 feet late this afternoon (Jan. 26).

We have been able to maintain telephone connections by hooking onto the leads from the poles out in front of the building ourselves as my brother-in-law is an old Western Electric man and you know I was with them myself as a kid. We have also been able to maintain a light current, so as to keep our radio going for hourly bulletins on the river stage, although our power and light switches are away under water.

Our plate glass windows were holding out fine under the water pressure until this morning when some damn fool went up Pearl Street in a speed boat and broke every window in the street with his bow wave, and since then some of our boys have been out in the boat hauling out silk hose, underwear, socks and other items floating down the street from the houses up stream.

All in all, we are mighty lucky for we will have no money loss, thanks to our splendid gang and a well-organized plan of work and if we can keep going, we will go right down with the river, mop up, and get going again as we have just heaps of orders that are still coming in from our salesmen all over the country. I hate to think what my nice office will look like when I get back down there. My fish pictures were the last thing we took out of there with the boat. Can you imagine rowing around in your office in a boat taking pictures off the wall? I know you can't.—but I did.

Well, we will still be doing business at the old stand when this flood is about forgotten. Give my best to all my friends and tell them you can't keep The Geo. H. Nowland Co. down. We take some real beatings but always come up for more."

New Product for Vulcan

Vulcan Stamping and Manufacturing Co., Chicago, tin can and steel pail manufacturers, announce that they will shortly start to manufacture steel shipping drums. The new production will be handled in the company's Bellwood plant.

Getz Branch Office

Getz Exterminators, Inc., manufacturers of insecticides, are now operating a branch office in Oklahoma City under the direction of D. H. Bedingfield.

Cellophane Generic Term

The U. S. Supreme Court recently upheld a decision of the U. S. Circuit Court of Appeals making "Cellophane" a generic term, and putting it in the same class with such product names as linoleum and aspirin. The Circuit Court action was brought by Du Pont Cellophane Co. against Waxed Products Co. for the latter's infringement of the alleged trade mark "Cellophane" by using the word in connection with goods not manufactured by Du Pont. The decision allows the use of the word cellophane in describing glassine or transparent waxed paper, but calls for prefixing the name of the manufacturer wherever the term is used.

Drug Chain Group Cruise

A cruise to the West Indies on the *S. S. Veendam* is planned for the semi-annual meeting of the Associated Chain Drug Stores to be held Feb. 10-23. The itinerary includes time ashore in Port-au-Prince, Haiti, and Kingston, Jamaica, and a two-day visit to Havana.

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TOILET SOAPS
LAUNDRY SOAPS
BATH TABLETS
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For Foot and Power Presses

Manufacture Backed by 35 Years' Experience

ANTHONY J. FRIES

717 Sycamore Street — Cincinnati, O., U. S. A.

Mr. Private Brand

There is more to Private Brand than just a trade name .....

That's why it PAYS to make WINDSOR your source of WAX supply.....

WINDSOR not only prints your label without charge but also gives you a complete line of consistent, uniform quality wax products packed in new, standard containers—at prices that enable you to hold your trade.....

It's the "CARNAUBA" in WINDSOR that satisfies your customers.

Windsor Wax Co., Inc.
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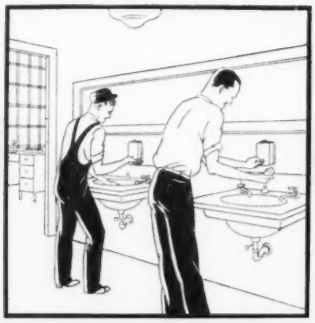


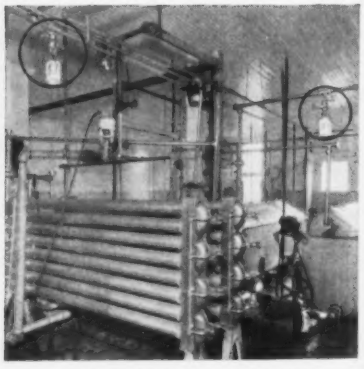
SOP-O-ZON

LIQUID
LATHER
POWDER
SOAP DISPENSERS

Serving the Soap Manufacturer and Jobber since 1906

BOBRICK MANUFACTURING CORPORATION

111-117 GAREY ST., LOS ANGELES
215 FOURTH AVE., NEW YORK CITY



STATIONARY INSTALLATION

"FUMERAL" INSTANT DIFFUSER

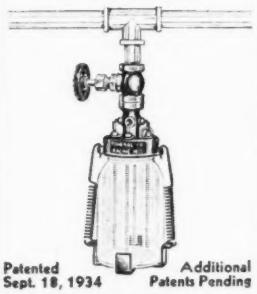
For the instant diffusion and powerful circulation of various brands of fly sprays, insecticides, deodorants and fumigants.

Safe, modern sanitation, insect, vermin and rodent control for dairies, ice cream and cheese factories, bakeries, confectionaries, flour, cereal and food mills, packing plants, sausage factories, refrigerators, office buildings, store rooms, ocean liners, paper mills and thousands of various industries.

At the left shows how Fumeral instant diffusers are permanently installed. There are no moving parts, nothing to get out of order, no electricity to fuss with. Pressures from 30 to 200 pounds may be used. No adjustments are required. Each Fumeral unit will take care of 10,000 cubic feet of space. Fumeral does a thorough job—it is inexpensive—efficient and most economical. Thousands in service from coast to coast.

FUMERAL COMPANY
RACINE, WIS.
Manufacturers of Fumeral Stationary and Portable Diffusers

FUMERAL PRESSURE SYSTEM CONNECTS TO STEAM OR AIR PRESSURE LINE



Patented Sept. 18, 1934 — Additional Patents Pending

ANYONE CAN INSTALL IT

M M & R Sales Meeting

The entire staff of salesmen of Magnus, Maybee & Reynard, Inc., participated in a three-day sales convention at the New York home office, January 5, 6 and 7. A series of talks by A. H. Downey, head chemist, and other members of the technical staff featured the meetings, including such topics as balsams, grass oils and other important essential oils. W. F. Fischer, sales manager, had general supervision of the three-day session, which was concluded with a banquet for the whole M. M. & R. staff. P. C. Magnus, president of the company, in a closing address, forecast "A Year of Increasing Prosperity for American Industry."

Dow A.C.S. Director

Willard H. Dow, president of Dow Chemical Co., Midland, Mich., was recently elected a director of American Chemical Society, succeeding Milton C. Whitaker, a director of American Cyanamid Co., New York. Mr. Dow's term is from January 1, 1937 until December, 1940. Dr. Edward R. Weidlein, director of Mellon Institute of Industrial Research, is president of American Chemical Society, and Robert T. Baldwin, treasurer.

Name Wilson Sales Manager

Myron Wilson, formerly in the specialty department of General Electric Co., has just resigned his position as eastern sales representative of Candy & Co., and has been appointed general sales manager of Continental Chemical Co., Cleveland, to take complete charge of merchandising, advertising, and sales. Mr. Wilson will have his headquarters in Chicago.

Cyanamid Acquires Stone

The business and plant of Chas. H. Stone, Inc., Charlotte, N. C., recently acquired by American Cyanamid & Chemical Corp., New York, will be merged with that of Cyanamid's southern district. The Charlotte district, with offices located at 822 West Morehead St., Charlotte, is now under the direction of Paul F. Haddock, southern sales manager, with Chas. H. Stone as Charlotte district production manager.

Soap Output Rose 20%

(*From Page* 45)

The value of perfumes, cosmetics, and other toilet preparations manufactured in 1935 by American firms amounted to $119,446,172, as compared with $97,048,992 in 1933. This industry, as constituted for census purposes, includes establishments engaged primarily in the production of toilet preparations, such as powders, washes, lotions, hair tonics, cosmetics, dentifrices and shaving creams containing no soap. Of this total, $25,213,764 consists of perfumes, cosmetics, and other toiletries made as secondary products in other industries, principally the soap industry.

TABLE 2.—SUMMARY FOR THE INDUSTRY: 1929 TO 1935
Plants with annual production valued under $5,000 are excluded.

	1935	1933	1931	1929
Number of establishments	238	235	248	282
Wage earners (average for the year)[1]	13,911	14,304	14,163	14,363
Wages[2]	$15,339,045	$14,140,241	$17,739,732	$18,994,656
Cost of materials, containers, fuel, and purchased energy[2]	$139,423,048	$93,507,390	$121,829,338	$180,352,984
Products, total value[2]	$239,152,130	$200,127,929	$257,718,699	$310,191,530
Soap	$211,000,091	(3)	$228,330,828	$274,839,304
Other products, value and receipts for contract work	$28,148,039	(3)	$29,387,871	$35,352,226
Value added by manufacture[4]	$99,729,082	$106,620,539	$135,889,361	$129,838,546

	Percent of increase or decrease (—)			
	1933-1935	1931-1933	1929-1931	1929-1935
Number of establishments	1.3	—5.2	—12.1	—15.6
Wage earners (average for the year)	—2.7	1.0	—1.4	—3.1
Wages	8.5	—20.3	—6.6	—19.2
Cost of materials, containers, fuel, and purchased energy	49.1	—23.2	—32.4	—22.7
Products, total value	19.5	—22.3	—16.9	—22.9
Value added by manufacture	—6.5	—21.5	4.7	—23.2

[1]Not including salaried officers and employees. The item for wage earners is an average of the numbers reported for the several months of the year, equal weight being given to full-time and part-time wage earners.

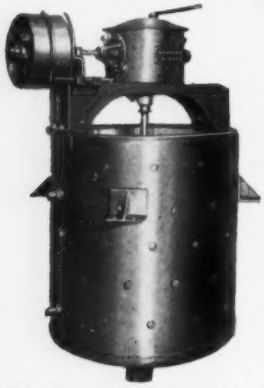
[2]Profits or losses cannot be calculated from the census figures because no data are collected for certain expense items, such as interest, rent, depreciation, taxes, insurance, and advertising.

[3]No comparable data.

[4]Value of products less cost of materials, fuel, and purchased electric energy.

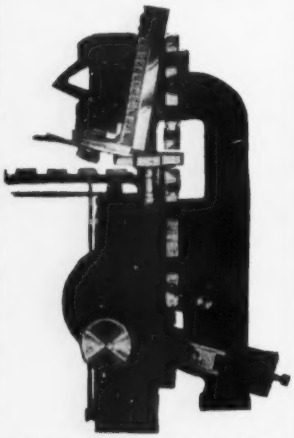
Special Offerings of

New CRUTCHERS



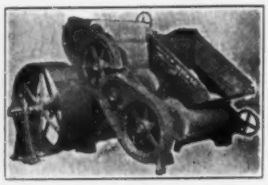
This Newman brand new, all steel, steam jacketed soap crutcher will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap.

Automatic JONES PRESS



Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our shops.

H-A SOAP MILL



This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls. Priced for quick sale.

New and Rebuilt

SOAP MACHINERY

by

NEWMAN

We carry a complete line of equipment for the soap and sanitary products industry. All used equipment is rebuilt in our own shops and is guaranteed to be in first class condition. All new equipment that we manufacture such as crutchers, frames and cutting tables is of the finest material and workmanship. You can buy with confidence from Newman.

USED SPECIALS

For the Soap, Chemical, Cosmetic and Allied Trades

H-A, 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.

Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.

Ralston Automatic Soap Presses.

Scouring Soap Presses.

Empire State, Dopp & Crosby Foot Presses.

2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.

H-A 4 and 5 roll Steel Mills.

H-A Automatic and Hand-Power slabbers.

Proctor & Schwartz Bar Soap Dryers.

Blanchard No. 10-A and No. 14 Soap Powder Mills.

J. H. Day Jaw Soap Crusher.

H-A 6, 8 and 10 inch Single Screw Plodders.

Allbright-Nell 10 inch Plodders.

Filling and Weighing Machine for Flakes, Powders, etc.

Steel Soap frames, all sizes.

Steam Jacketed Soap Remelters.

Automatic Soap Wrapping Machines.

Glycerin Evaporators, Pumps.

Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.

Perrin 18 inch Filter Press with Jacketed Plates.

Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.

Day Grinding and Sifting Machinery.

Schultz-O'Neill Mills.

Day Pony Mixers.

Gardiner Sifter and Mixer.

Proctor & Schwartz large roll Soap Chip Dryers complete.

Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.

Day Talcum Powder Mixers.

All types and sizes—Tanks and Kettles.

Ralston and H.A. Automatic Cutting Tables.

Soap Dies for Foot and Automatic Presses.

Broughton Soap Powder Mixers.

Williams Crutcher and Pulverizer.

National Filling and Weighing Machines.

Plant of the Holman Soap Co., Chicago, is offered for sale. Completely equipped modern factory.

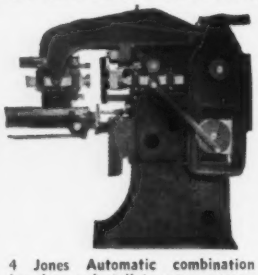
Send us a list of your surplus equipment—we buy separate units or complete plants.

Newman Tallow & Soap Machinery Co.

1051 W. 35th St., Chicago, Illinois

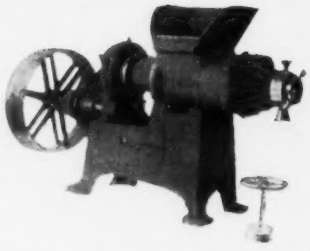
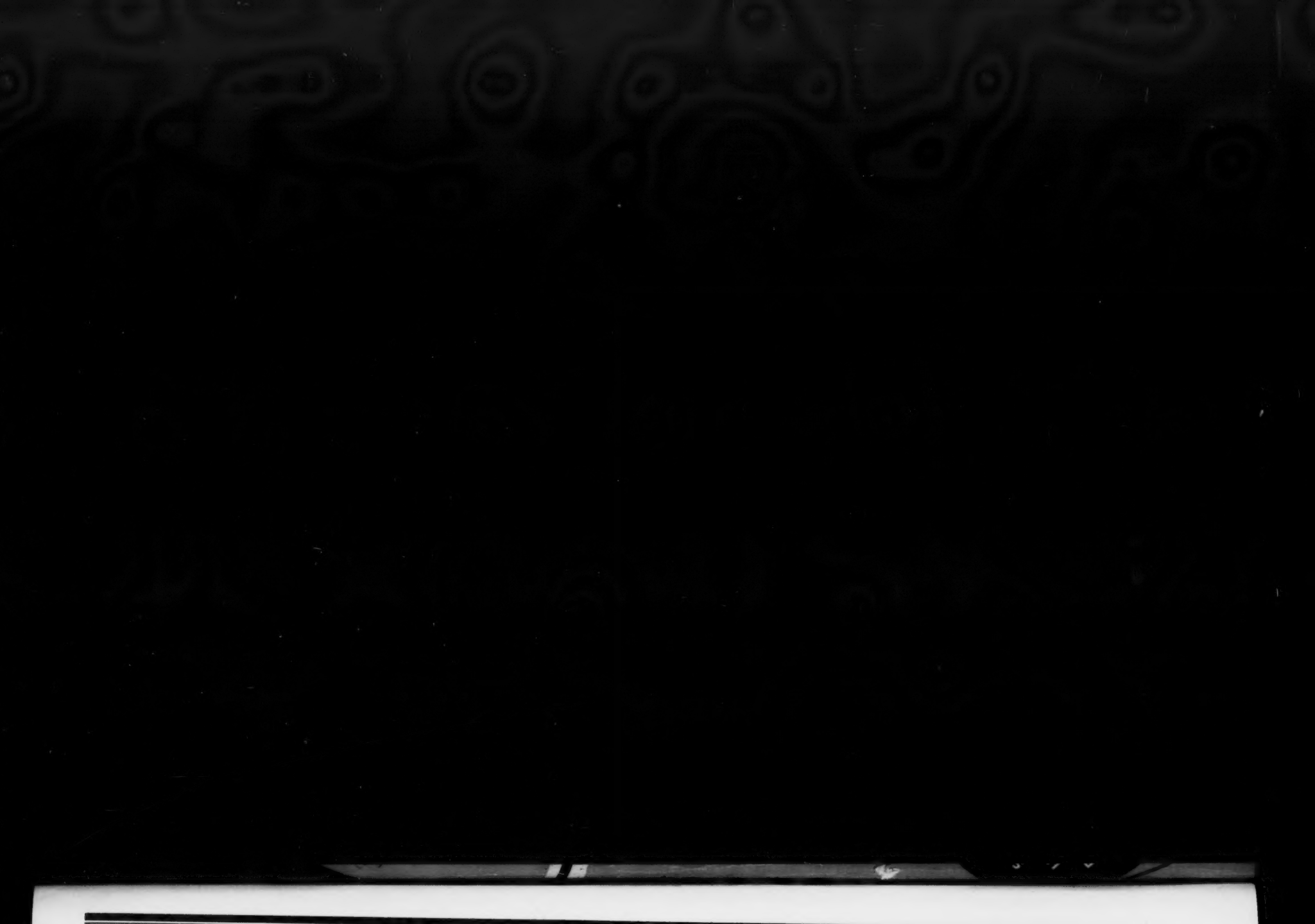
Our forty years soap experience can help solve your problems.

JONES AUTOMATIC



4 Jones Automatic combination laundry and toilet soap presses. All complete and in perfect condition.

SINGLE SCREW SOAP PLODDER



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.